

Operating Manual



FireWIN **Pellet flue-connected boiler**

Windhager 
Zentralheizung
www.windhager.com

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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 ZENTRALHEIZUNG, 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 is recyclable with all components.

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!

Cordially,

WINDHAGER ZENTRALHEIZUNG

1.1 Safety precautions

The boiler and related accessories reflect the state of the art and meet all applicable safety regulations.

Your boiler and all accessories operate using 230 VAC 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.



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



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

1.2 Fuel

The boilers are designed to burn the following fuels:

Pellets according to ÖNORM M7135 or DIN*plus*.

Significant criteria based on the standards are as follows:

Diameter 6 mm	Length 80% between 15 – 30 mm
Smooth surface	Density at least 1.1 kg/dm ³
Residual moisture content max. 10%	Energy content min. 18 MJ/kg = 5 kWh/kg (in water-free condition)
Ash content max. 0.5%	Abraded particles max. 2.3%
Chemical/synthetic binding agents are strictly prohibited	No impurities from varnish or paint residues, etc.

The pellets must be stored in a dry place so that they can be transported without problems and in order to achieve trouble-free operation with optimum combustion and at maximum efficiency.

Important information for system operators

1.3 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 will guarantee the optimal use and service life of your boiler system. This is the only means 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 is neglected. The customer will be charged for any unnecessary costs arising as a result.

Start-up and maintenance 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.

1.4 Heating water

The chemical composition of the heating water must meet the specifications of ÖNORM H 5195 Part 1 or VDI 2035 P1. According to ÖNORM M 5195 Part 1, the condition of the heating water must be checked every 2 years by a heating technician in order to avoid corrosion and sediment accumulation in the heating system.

The check must be performed once every year in heating systems with more than 1500 litres of heating water.

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.

1.5 Operating noises

The FireWIN is a modern, fully automated pellet flue-connected boiler 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 ash removal. If these become louder over time ⇒ clean the pellet flue-connected boiler and, in particular, 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.

Important information for system operators

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) ⇒ Use air supply pipes to relocate the induction point outside the house or into an adjacent room.

Light whistling noises – Above the front window on the door frame, there are openings for the window air-wash function that can give rise to whistling noises if they are dirty ⇒ clean the holes.

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 installation instructions, “Installation”.

1.6 Sources of danger

1.6.1 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 flue-connected boiler must be protected against the effects of heat, in particular in the area of the front window.



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



Do not touch the front window – danger of burns.

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



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.

1.6.3 Burner pot



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.

1.6.4 Pellet storage room or storage container filling



The pellet flue-connected boiler must be switched off at the ON/OFF button on the InfoWIN at least 15 minutes before the store is filled – Fig. 2.

During filling, negative pressure is created in the pellet store and this can cause burn-back in the pellet flue-connected boiler. Therefore, the **boiler must be stopped from operating during the filling procedure or 15 minutes in advance.**



Fig. 2 Switching off FireWIN

Operation

2.1 Functional description, function elements and operating controls

The FireWIN pellet flue-connected boiler 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 (temperature 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 heat consumed 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.

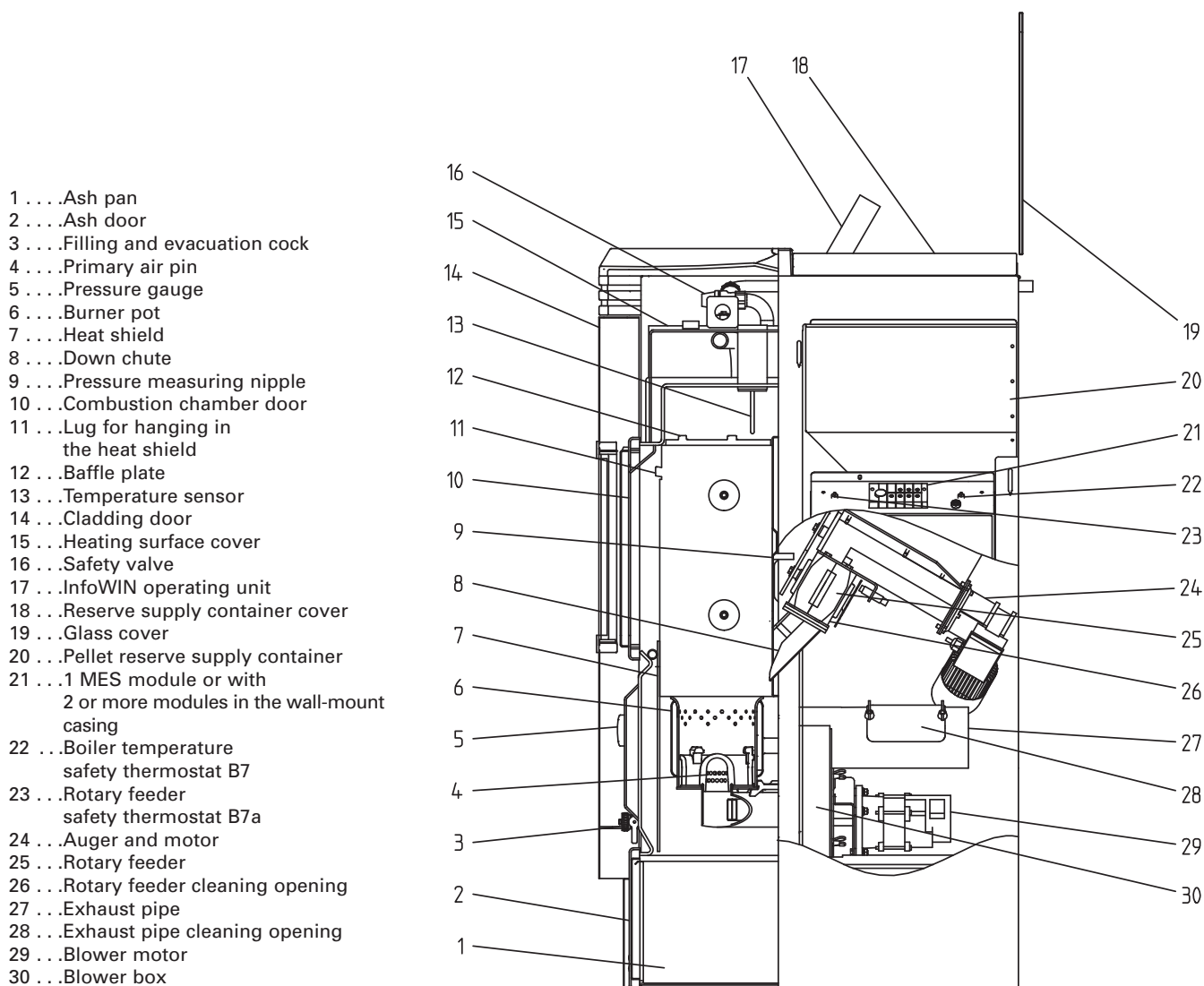


Fig. 3 FireWIN Klassik – view from right

Operation

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 (not during 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 wands 1, 2 and 3 is fully automatic. The system changes to the next suction wand after the reserve supply container has been filled a certain number of times. This means the storage room is evenly emptied to a large extent.

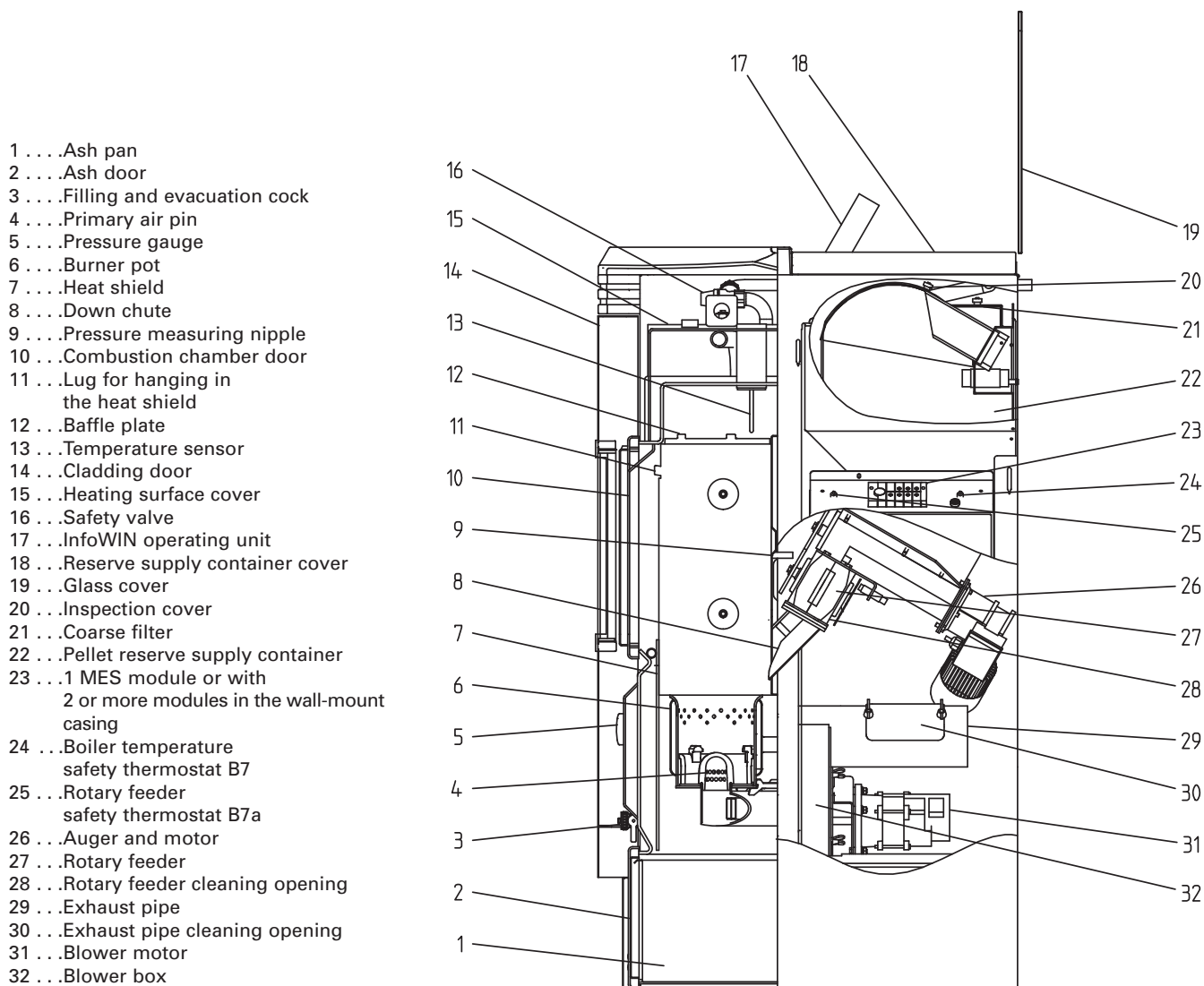


Fig. 4 FireWIN Premium – view from right

Operation

2.1.3 FireWIN Exklusiv

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

Fully automated heating surface cleaning:

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

Fully automated ash compactor:

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

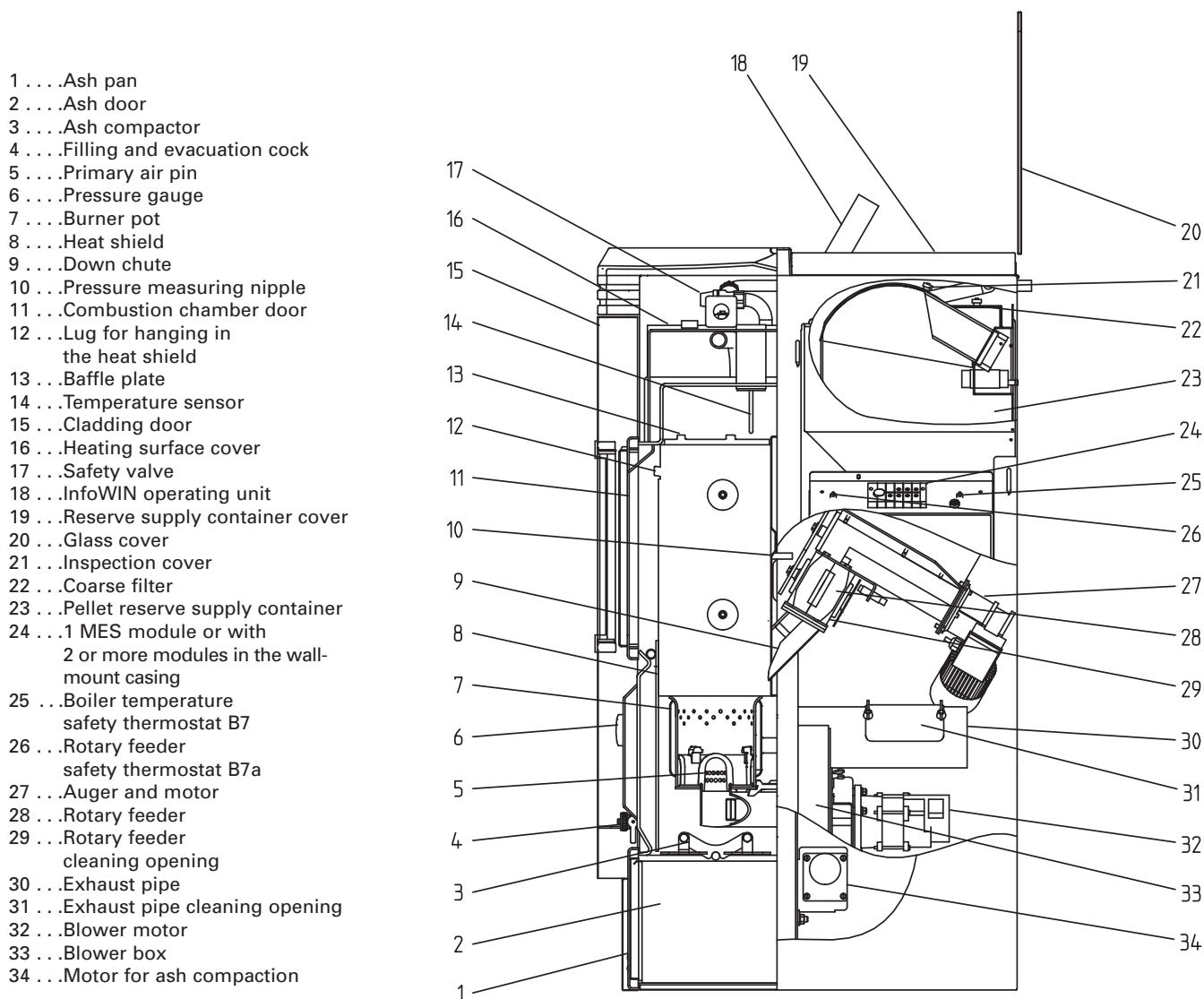


Fig. 5 FireWIN Exklusiv – view from right

Operation

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 heated during the summer. If you do not wish for the room to be heated, you can significantly reduce the amount of heat radiated using the patented heat shield (accessory Fire 023).

The distribution of heat between air and water heating is approx. 15 : 85 % without the heat shield and approx. 9 : 91 % with the heat shield pushed up.

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. 6, 7.



Fig. 6 Hooking in the Allen key



Fig. 7 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. 8. If you have any questions, your installer will gladly answer them.



Fig. 8 Filling the system

Pressure gauge (system pressure)

Filling and evacuation cock

b) Ventilation:

If you are operating the device with room air, please make sure the room where it is installed 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.

Operation

2.3 Filling the reserve supply container

2.3.1 FireWIN Klassik – Manual filling

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

Fold open the cover of the reserve supply container (Fig. 9) 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.



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



Fig. 9 Folding open the cover

2.3.2 FireWIN Premium and Exklusiv – fully automatic filling

The reserve supply container is filled by the fully automated 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 familiarize the customer with the operation and cleaning of the boiler, with reference to the Operating Manual.

Operation

2.4 InfoWIN

The InfoWIN is located at the top under the glass cover. Press the locking button at the front and fold the glass cover open, the InfoWIN pops up automatically – Figs. 10, 11. 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.

Note: If the text on the display moves out of position, the display will be corrected during the next automatic refresh (after about 30 minutes). Such a shift or distortion might be caused by an electrostatic discharge or the like.



Fig. 10 Press the locking button



Fig. 11 InfoWIN pops up

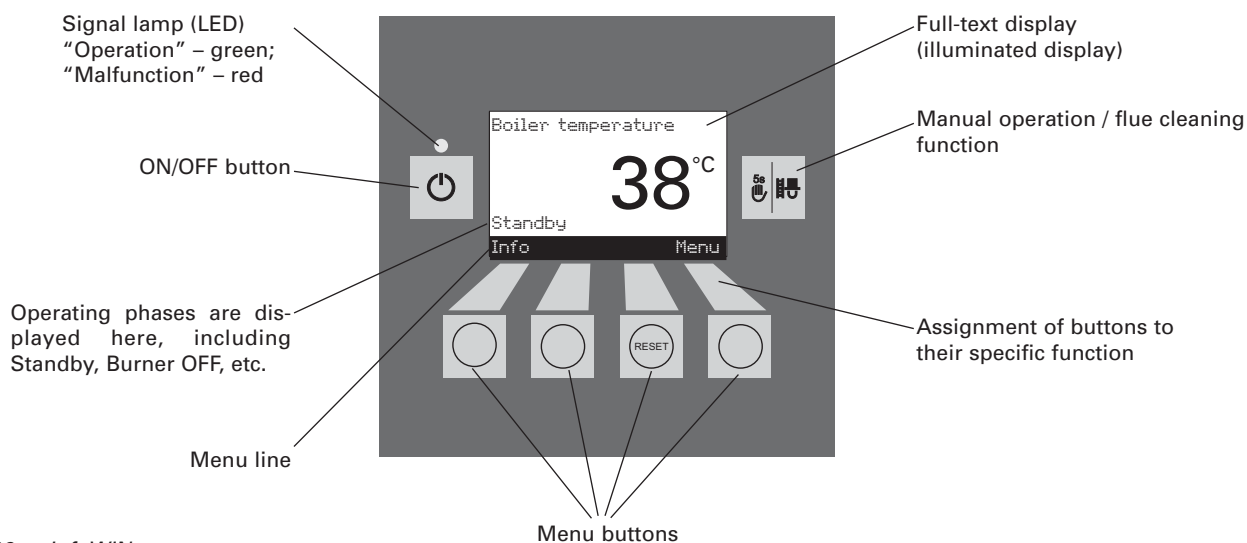


Fig. 12 InfoWIN

The various operating modes are displayed on InfoWIN 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
- Flue cleaning function
- Shut-down procedure



Corresponding **operating phases**:

- Standby
- Purging
- Ignition phase
- Flame stabilisation
- Modulation mode
- Burnout
- Burner OFF
- Switch off heat generator

Operation

2.5 Operating modes

2.5.1 OFF mode

When operation is shut off, the display is inactive and all buttons, with the exception of the *ON/OFF* button are not functional. The LED on the InfoWIN does not light – Fig. 13.

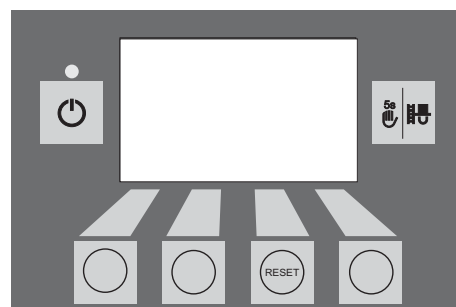


Fig. 13 OFF mode

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

Press the *ON/OFF* button, the self-test starts automatically – Fig. 14.

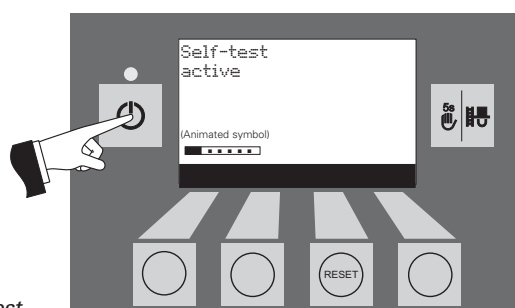


Fig. 14 Self-test

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. 15.

If the self-test was unsuccessful, an information message (e.g. information, fault, alarm) is displayed (see page 51).

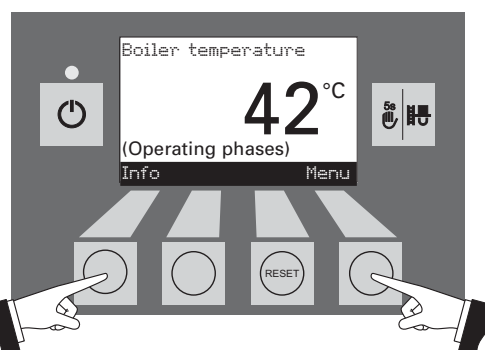


Fig. 15 Standard display

The display lighting switches off automatically after 45 seconds (Fig. 16). Pressing one of the six buttons switches the lighting on again for 45 seconds.

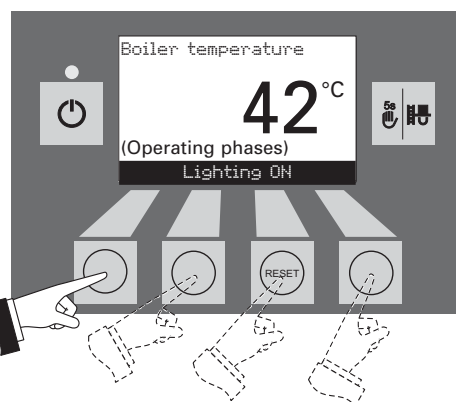


Fig. 16 Display lighting OFF

InfoWIN 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, solid fuel or buffer tank operation; malfunctions are also displayed. These operating modes and states are described later in these instructions.

Operation

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 vacuum fan continues to run until all the remaining pellets have been burned and the burner pot has cooled down. – Fig. 17.



Fig. 17

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. 18.

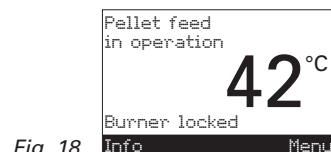


Fig. 18

2.5.4 Solid fuel / buffer mode

If the FireWIN pellet flue-connected boiler is combined with a solid fuel boiler or an accumulator tank, the WVF or BUL module automatically switches over between pellet and solid fuel/buffer mode.

Combustion of the FireWIN is stopped when the WVF or BUL module sends the request to switch over to solid fuel/buffer mode – Fig. 19.

Following this, the system switches over to solid fuel/buffer mode and the FireWIN burner is locked – Fig. 20

If the pellet flue-connected boiler is switched off using the ON/OFF button on the InfoWIN, an automatic switchover to solid fuel/buffer mode is performed in conjunction with a WVF module. Once the InfoWIN unit is switched on, the pellet flue-connected boiler can be locked out for a maximum of 15 minutes due to switch-over delays. This is displayed by InfoWIN – Fig. 20.

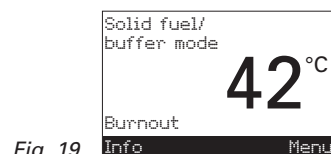


Fig. 19

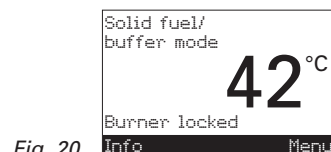


Fig. 20

Operation

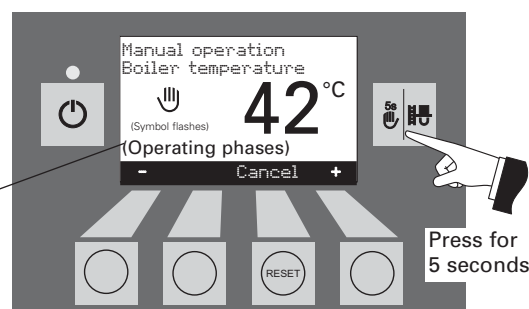
2.5.5 Manual operation

Note: Manual operation cannot be started in “solid fuel/buffer mode”. Manual operation is not allowed to be started if an installed solid fuel boiler is operating (heated up). Manual operation is allowed to be started if there is no solid fuel boiler installed or is not operating but only the accumulator tank is active. In this case, first set the operating mode switch on the WVF module to relay test 2 or on the BUL module to relay test 1 (see WVF or BUL module operating manual).

Manual operation starts if the *Manual operation / flue cleaning function* button is pressed for longer than five seconds – Fig. 21. The boiler temperature is controlled in relation to the setpoint for manual operation (standard temperature: 60 °C). The current automatic setting is not affected by this. The lighting is switched off after the lighting timer has counted down (45 seconds); the function or display remains unchanged.

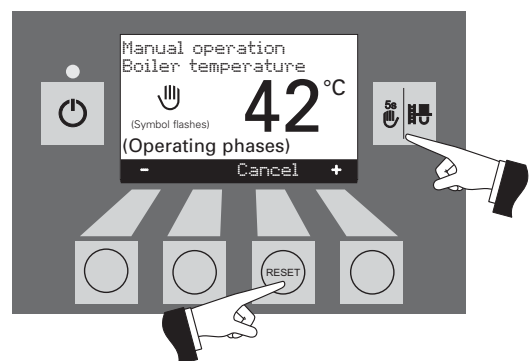
The various operating phases are displayed here, including Burner in operation, Burner OFF, etc.

Fig. 21



Pressing the *Cancel* button or *Manual operation / flue cleaning function* button terminates the function – Fig. 22. The boiler returns to automatic operation.

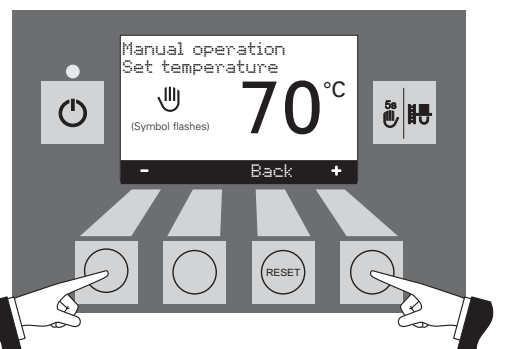
Fig. 22



Setpoint adjustment for manual operation

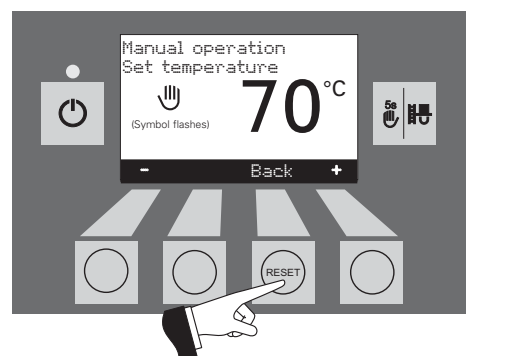
Pressing the + or – button causes the display to switch to the setpoint adjustment mode – Fig. 23. Using the + or – button can change the setpoint in 1 K steps. The temperature set in this mode is not permanently saved. The original set temperature is used once manual operation ends.

Fig. 23



After pushing the *Return* button (Fig. 24) or after waiting about 10 seconds, the screen returns to its previous display.

Fig. 24



Operation

2.5.6 Flue cleaning function

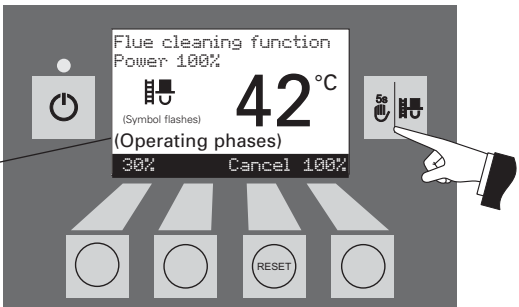
This function aids the performance of legally-required emissions testing.

Note: The flue cleaning function cannot be started in “solid fuel/buffer mode”. The flue cleaning function is not allowed to be started if an installed solid fuel boiler is operating (heated up). The flue cleaning function is allowed to be started if there is no solid fuel boiler installed or is not operating but only the accumulator tank is active. In this case, first set the operating mode switch on the WVF module to relay test 2 or on the BUL module to relay test 1 (see WVF or BUL module operating manual).

A short press of the *Manual operation / flue cleaning function* button switches on the display lighting. Pressing the button again starts the flue cleaning function – Fig. 25. The boiler temperature is regulated to approx. 60 °C.

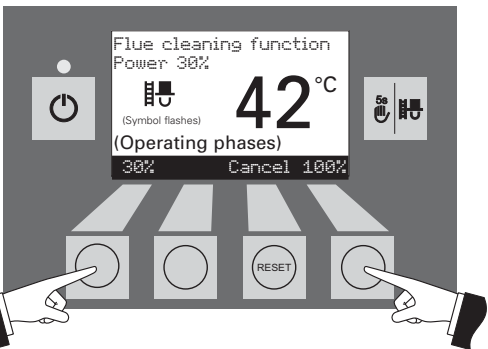
The various operating phases are displayed here, including Burner in operation, Burner OFF, etc.

Fig. 25



Pressing the corresponding menu button enables the boiler to be operated with 30 % or 100 % output – Fig. 26. The lighting is switched off after the lighting timer has counted down (45 seconds); the function or display remains unchanged. The first button press only switches on the lighting.

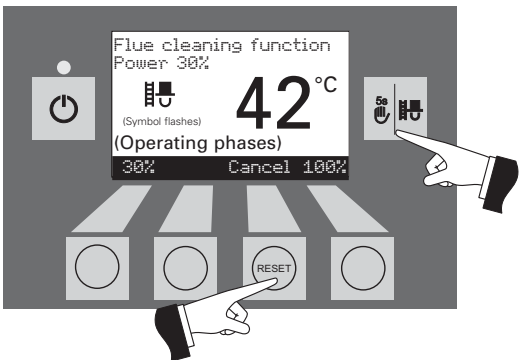
Fig. 26



The flue cleaning function ends

- if the *Cancel* button or *Manual operation / flue cleaning function* button is pressed – Fig. 27.
- automatically after about 45 minutes.

Fig. 27

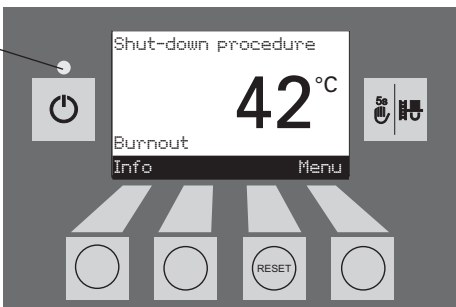


2.5.7 Shut-down procedure

The boiler is switched off – Fig. 28.

The green LED flashes

Fig. 28



Operation

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 – Fig. 29.

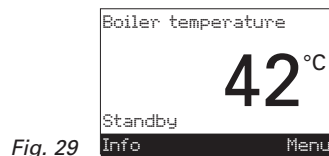


Fig. 29

2.6.2 Purging

The vacuum fan runs, the combustion chamber of the FireWIN is flushed through with fresh air. This phase can last several minutes before the burner fires – Fig. 30.

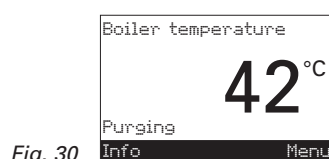


Fig. 30

2.6.3 Ignition phase

The vacuum 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. 31.

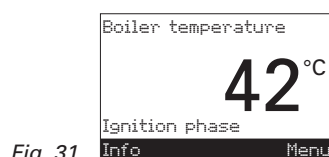


Fig. 31

2.6.4 Flame stabilisation

Following the ignition procedure, even combustion is established and then the system switches over to modulation mode – Fig. 32.

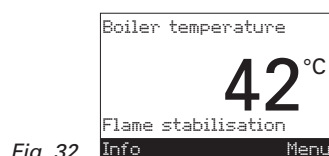


Fig. 32

2.6.5 Modulation mode

The burner is in modulation mode. The output is infinitely varied between 30 % and 100 % – Fig. 33.

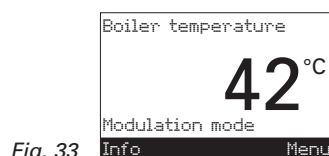


Fig. 33

Operation

2.6.6 Burnout

Combustion is stopped. Pellet transport into the burner pot is stopped, the vacuum fan continues to run until all the remaining pellets have been burned and the burner pot has cooled down – Fig. 34.

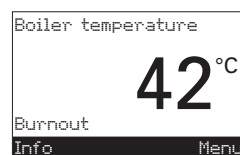


Fig. 34

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. 35.

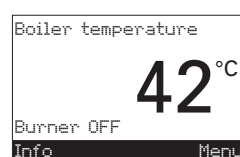


Fig. 35

Operation

2.7 Information text

Pressing the *Info* button calls up the most important FireWIN information – Fig. 36.

The *arrow* buttons select and display sub-menus – Fig. 37. Pushing the *Back* button (Fig. 38) or waiting 45 seconds returns to the standard display.

The following **information texts** exist:

- Actual boiler temperature (°C)
- Boiler temperature setpoint (°C)
- Flue gas temperature (°C)
- Current boiler output (%)
- Next boiler cleaning in (h)
- Operating hours (h)
- Total pellet consumption (t)
- Display module software version
- Automatic firing device software version
- Boiler model

Fig. 36

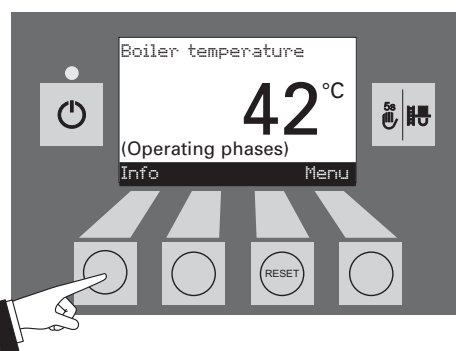


Fig. 37

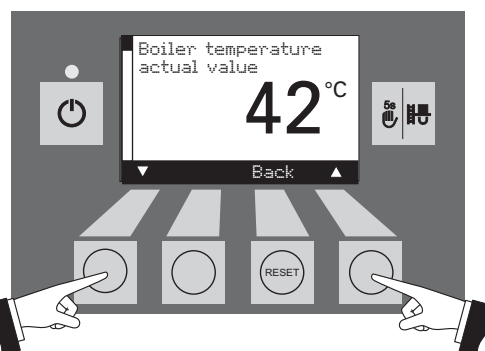
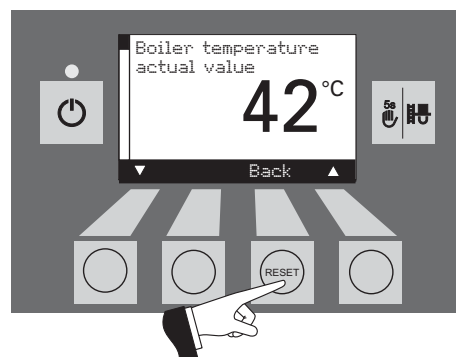


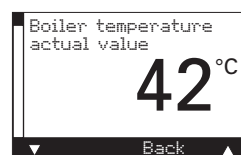
Fig. 38



2.7.1 Current boiler temperature

The current boiler temperature of the FireWIN is displayed – Fig. 39.

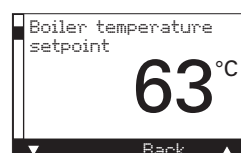
Fig. 39



2.7.2 Boiler temperature setpoint

The display indicates the boiler temperature as calculated by the control system. This setpoint is used to control the burner – Fig. 40.

Fig. 40



Operation

2.7.3 Flue gas temperature

If a flue gas temperature sensor (accessory) is connected, this function displays the current flue gas temperature – Fig. 41.

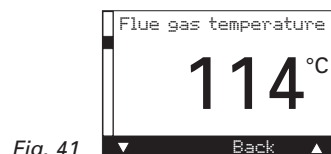


Fig. 41

2.7.4 Current boiler output

The current boiler output is displayed in %. The boiler output (modulation mode) can be set from 30 % to 100 % – Fig. 42.

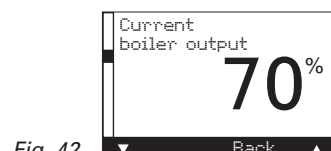


Fig. 42

2.7.5 Next boiler cleaning

Display of the operating time in hours remaining until the next boiler cleaning – Fig. 43.

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.



Fig. 43

2.7.6 Operating hours

The total number of burner operating hours is displayed – Fig. 44.

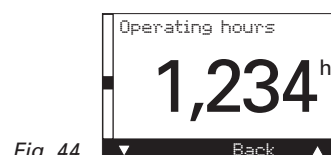


Fig. 44

2.7.7 Total pellet consumption

The total amount of pellets consumed is displayed in tonnes. The pellet consumption is used in determining cleaning intervals and maintenance work (see page 41, Care, cleaning, maintenance) – Fig. 45.

Note: The "Total pellet consumption" is a calculated value and can differ from the actual value by $\pm 15\%$.

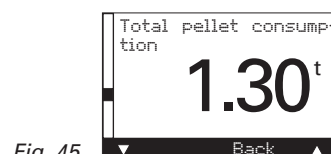


Fig. 45

Operation

2.7.8 Display module software version

The current software version of the display module (InfoWIN) is displayed – Fig. 46.

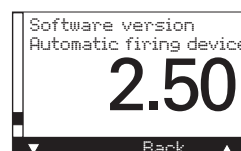
Fig. 46



2.7.9 Automatic firing device software version

The current software version of the automatic firing device is displayed – Fig. 47.

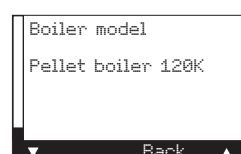
Fig. 47



2.7.10 Boiler model

The boiler model of the FireWIN is displayed – Fig. 48.

Fig. 48



Operation

2.8 Menu guide

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

Use the *arrow* buttons to select the Operator 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 45 seconds.

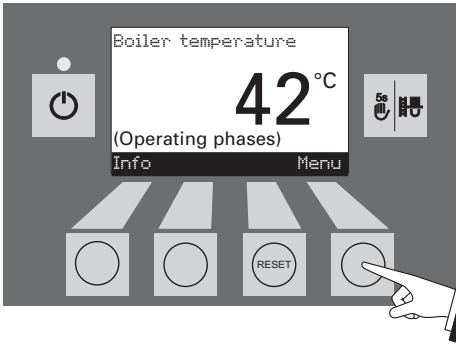


Fig. 49

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

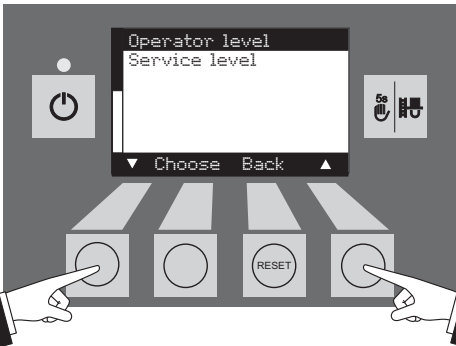


Fig. 50

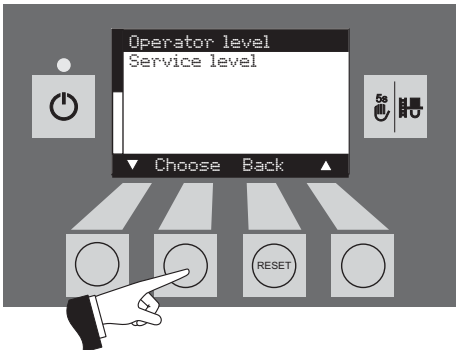


Fig. 51

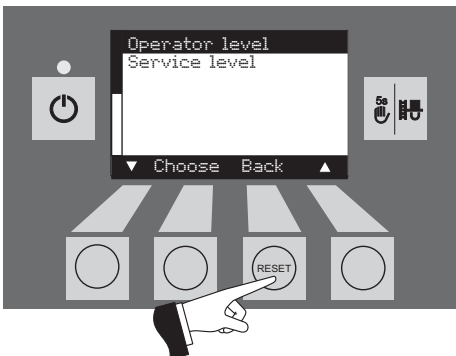
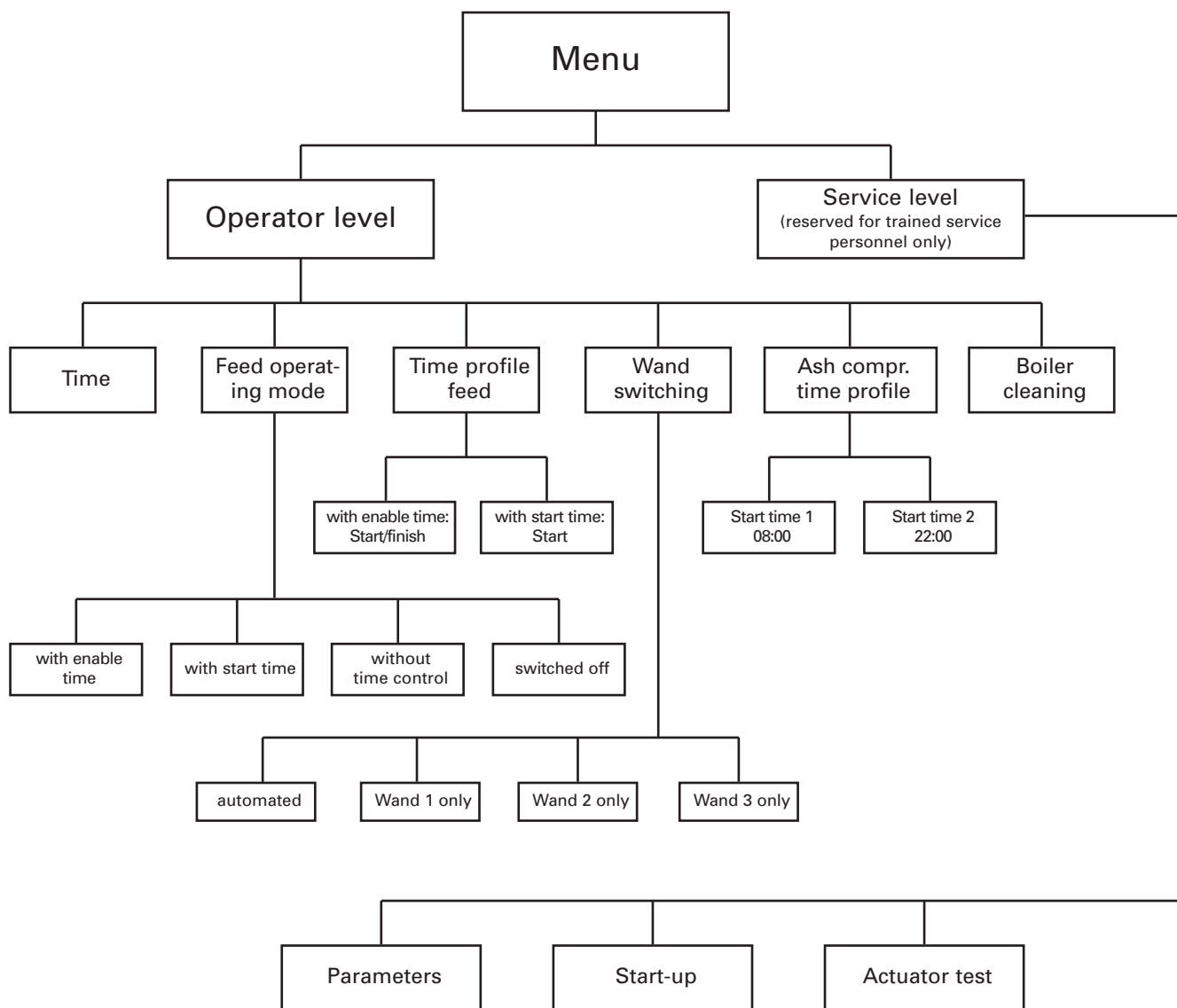


Fig. 52

Operation

Menu structure:



Only trained service personnel may perform parameter settings, start-up, the actuator test and make changes (see FireWIN installation instructions);

Operation

2.8.1 Operator level

Pressing the *Menu* button changes to the “Operator level” and “Service level” – Fig. 53.

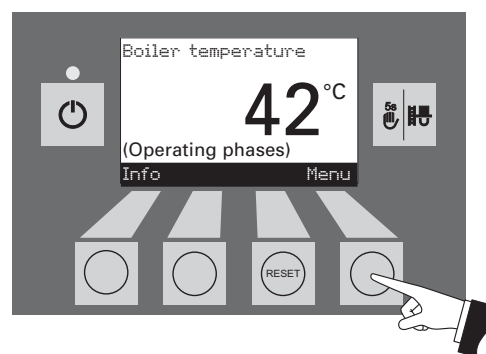


Fig. 53

The *Arrow* buttons select the “Operator level”; the *Choose* button confirms the choice – Fig. 54.



Fig. 54

On the Operator level, use the *Arrow* buttons to select the required sub-menu (Fig. 55); the *Choose* button confirms the choice.

Adjusting the:
time: See section 2.8.1.1.
Feed operating mode see section 2.8.1.2.
Time profile feed see section 2.8.1.3.
Wand switching see section 2.8.1.4.

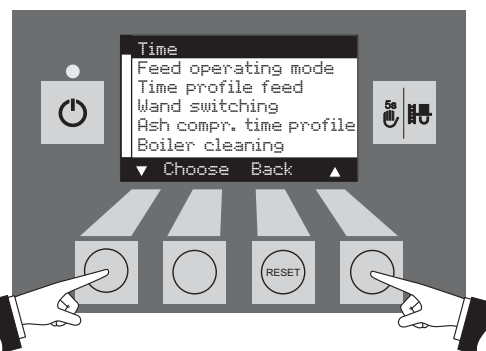


Fig. 55

Note: The menu items “Feed operating mode”, “Time profile feed” and “Wand switching” are only shown if a feed or wand switching function is provided and activated on the service level.

The menu item or sub-menu item is exited by pressing the *Back* button (Fig. 55) or after a delay of 45 seconds.

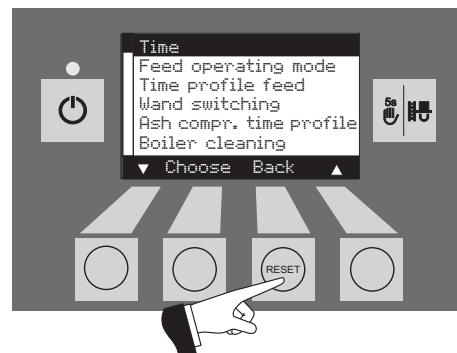


Fig. 55

Operation

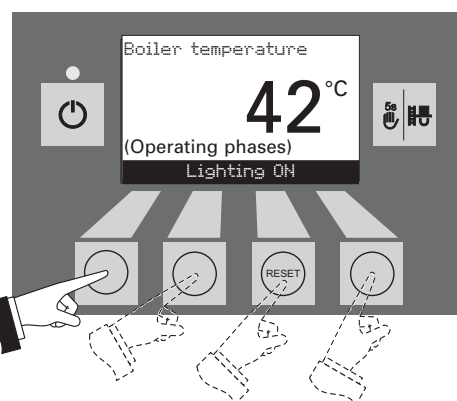
2.8.1.1 Setting the time

This time is used for the time control of the pellet feed.

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

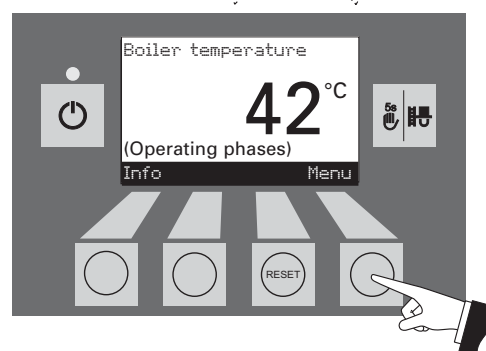
Pressing one of the four menu buttons switches the lighting on – Fig. 56.

Fig. 56



Press the *Menu* button – Fig. 57.

Fig. 57



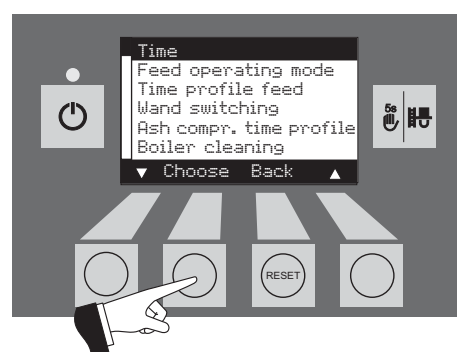
Confirm the selected menu item “Operator level” by pressing the *Choose* button – Fig. 58.

Fig. 58



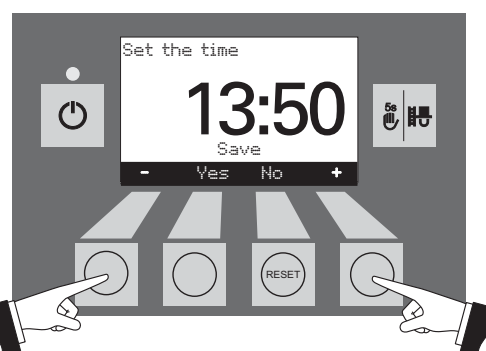
Confirm the selected “Time” sub-menu by pressing the *Choose* button – Fig. 59.

Fig. 59



The *arrow* buttons set the required time – Fig. 60.

Fig. 60



Operation

Confirm the changed time by pressing the **Yes** button – Fig. 61.

The display shows “Saving parameter value” for a few seconds (Fig. 62) and then changes back to the previous level – Fig. 63. The menu item or sub-menu item is exited by pressing the **Back** button (Fig. 63) or after a delay of 45 seconds.

Fig. 61

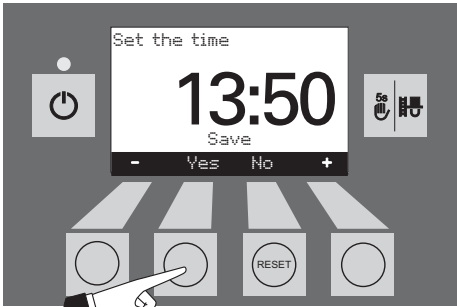


Fig. 62

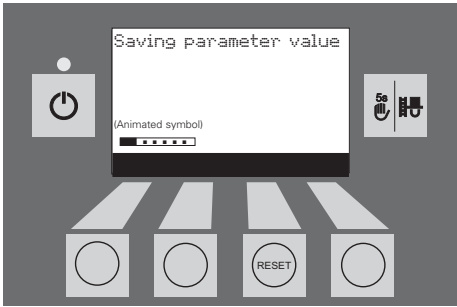
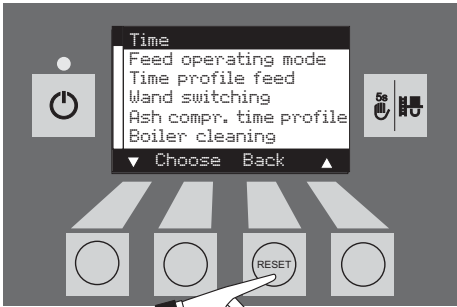


Fig. 63



Operation

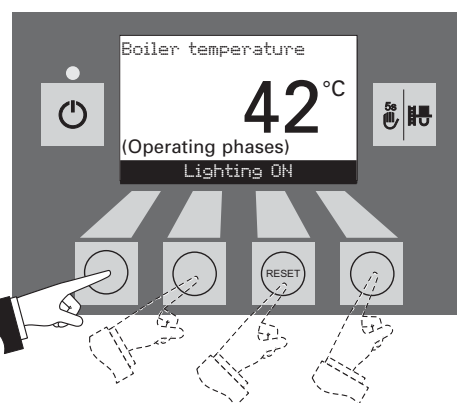
2.8.1.2 Setting the feed operating mode

This menu item sets:

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

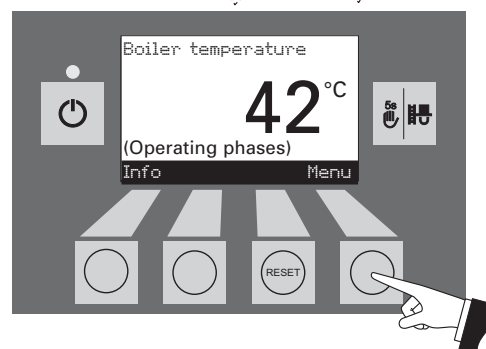
Pressing one of the four menu buttons switches the lighting on – Fig. 64.

Fig. 64



Press the *Menu* button – Fig. 65.

Fig. 65



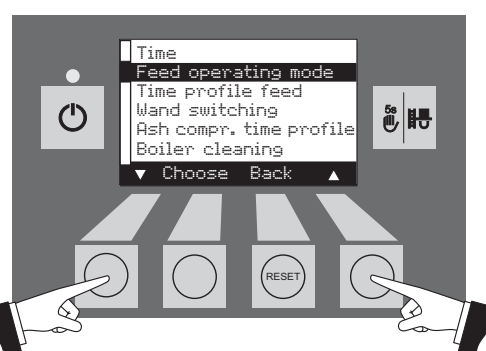
Confirm the selected menu item “Operator level” by pressing the *Choose* button – Fig. 66.

Fig. 66



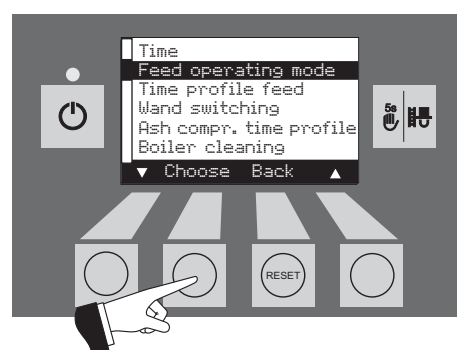
The *arrow* buttons select the “Feed operating mode” sub-menu – Fig. 67.

Fig. 67



Confirm the selected sub-menu “Feed operating mode” by pressing the *Choose* button – Fig. 68.

Fig. 68



Operation

The **factory setting** for the “Feed operating modem” menu item is “switched off”.

without time control: Select this if the feed noise (suction turbine) cannot be heard or is not disruptive in the living area (also in adjacent premises). 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 at any time as soon as the reserve supply container is empty.

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 at the set time (see page 31). 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) can be heard or is disruptive in the living area (also in adjacent premises).

Functional description: The pellet feed is enabled during a time period that can be set (see page 29). The reserve supply container is automatically refilled full at the end of the enable time.

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 (information message 582). Therefore, do not select a blocking time that is too long.

Burning duration with 25 kg pellets	
FireWIN	Burning duration at nominal output
FW 090	approx. 12.5h
FW 120	approx. 10 h

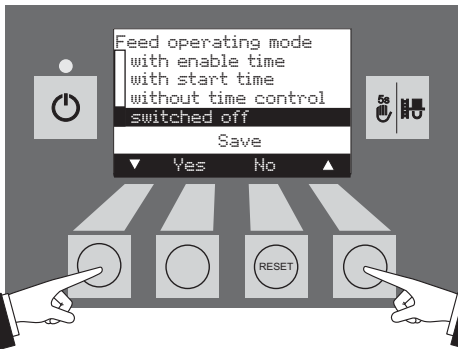


Fig. 69

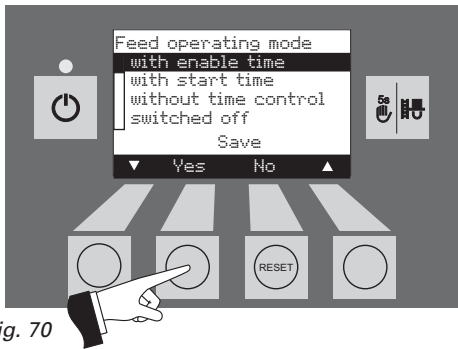


Fig. 70

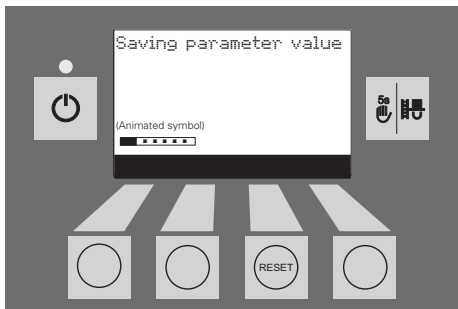


Fig. 71

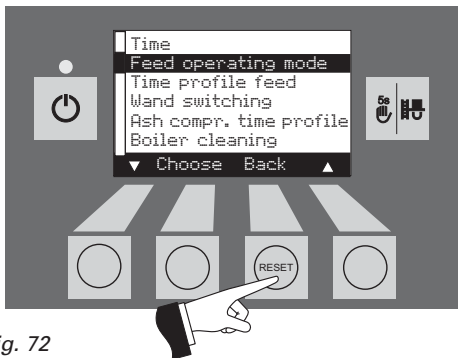


Fig. 72

i 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 2.8.1.3

The **arrow** buttons set the required sub-menu – Fig. 69.

Confirm the changed feed operating mode by pressing the **Yes** button – Fig. 70.

The display shows “Saving parameter value” for a few seconds (Fig. 71) and then changes back to the previous level – Fig. 70. The menu item or sub-menu item is exited by pressing the **Back** button (Fig. 72) or after a delay of 45 seconds.

Operation

2.8.1.3 Setting the time profile feed

The “Time profile feed” menu item displays the corresponding setting option depending on the setting in the “Feed operating mode” menu item (see section 2.8.1.2).

Setting: “with enable time” see page 29

Setting: “with start time” see page 31

Setting: “without time control” or “switched off” see page 31

Pressing one of the four menu buttons switches the lighting on – Fig. 73.

Press the *Menu* button – Fig. 74.

Confirm the selected menu item “Operator level” by pressing the *Choose* button – Fig. 75.

The *arrow* buttons select the “Time profile feed” sub-menu – Fig. 76.

Confirm the selected sub-menu “Time profile feed” by pressing the *Choose* button – Fig. 77.

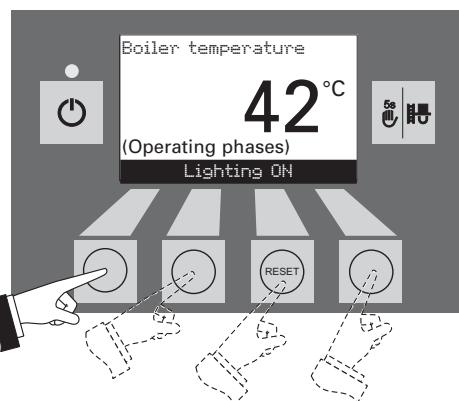


Fig. 73

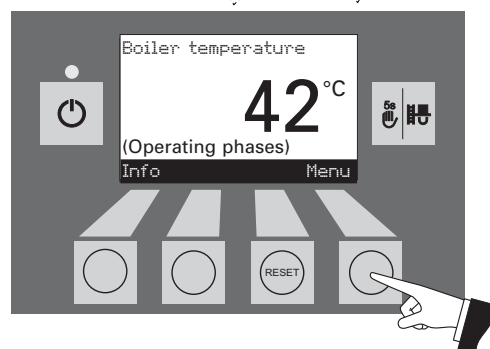


Fig. 74



Fig. 75

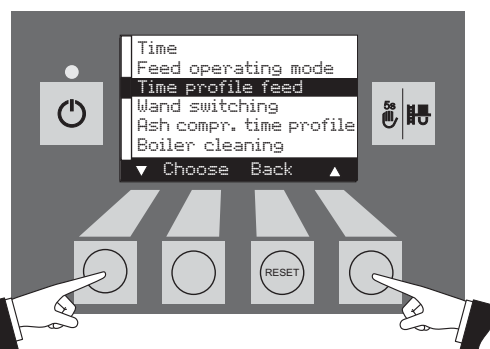


Fig. 76

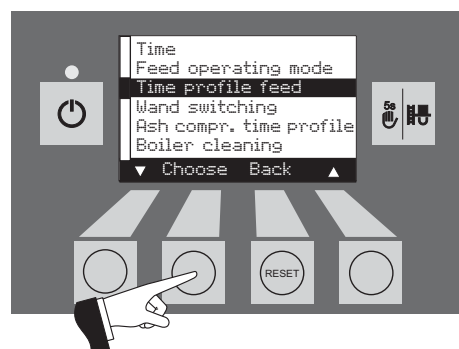


Fig. 77

Operation

The menu item or sub-menu item is exited by pressing the *Back* button (Fig. 83) or after a delay of 45 seconds.

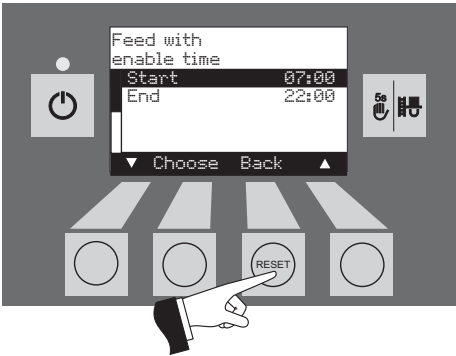


Fig. 83

Operation

“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 2.8.1.2). 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. 84.

Confirm the changed time by pressing the Yes button – Fig. 85. The display shows “Saving parameter value” for a few seconds (Fig. 86) and then changes back to the previous level.

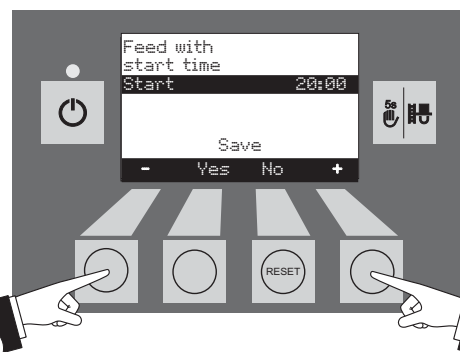


Fig. 84

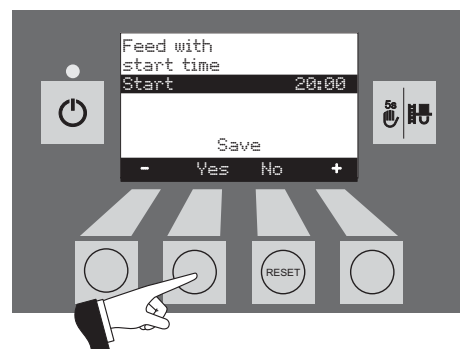


Fig. 85

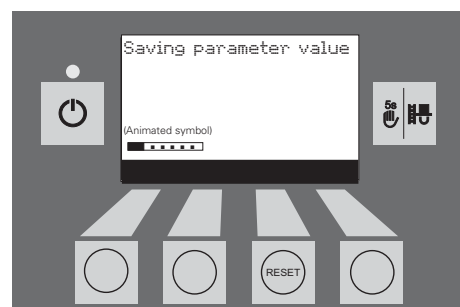


Fig. 86

The menu item or sub-menu item is exited by pressing the *Back* button (Fig. 87) or after a delay of 45 seconds.

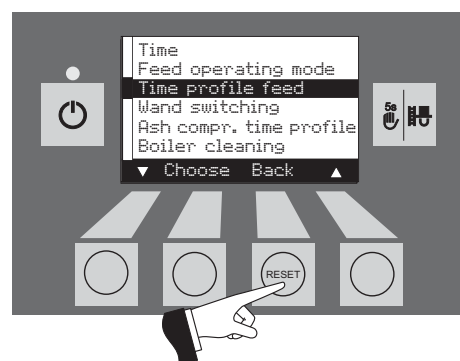


Fig. 87

“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 2.8.1.2).

The menu item or sub-menu item is exited by pressing the *Back* button (Fig. 88) or after a delay of 45 seconds.

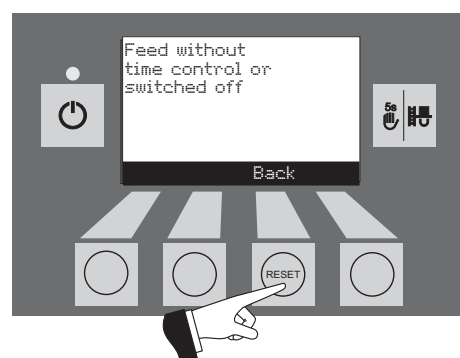


Fig. 88

Operation

2.8.1.4 Setting wand switching

If FireWIN is equipped with a fully automated pellet feed, it is possible to set here which wand is used for sucking pellets from the pellet storage room. There are four different setting options:

- automated: Removal from all 3 wands, automated switching.
- Wand 1 only: Removal from wand 1 only, no switching
- Wand 2 only: Removal from wand 2 only, no switching
- Wand 3 only: Removal from wand 3 only, no switching

Note: If “Pellet feed system, operation with 2 wands” is set in the service level, the option of “Removal from wand 3 only” is not displayed here.

Pressing one of the four menu buttons switches the lighting on – Fig. 89.

Press the *Menu* button – Fig. 90.

Confirm the selected menu item “Operator level” by pressing the *Choose* button – Fig. 91.

The *arrow* buttons set the “Wand switching” sub-menu – Fig. 92.

Confirm the selected “Wand switching” sub-menu by pressing the *Choose* button – Fig. 93.

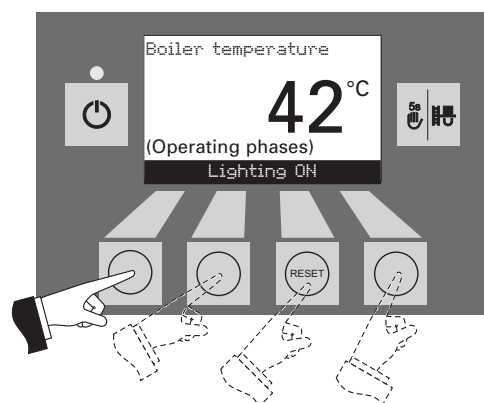


Fig. 89

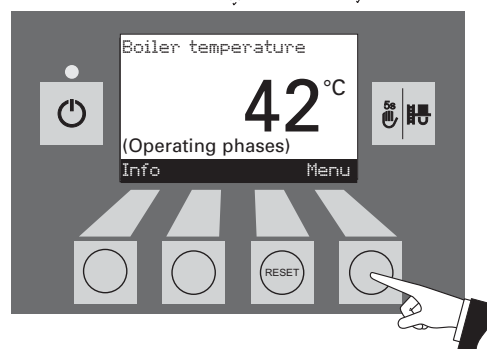


Fig. 90

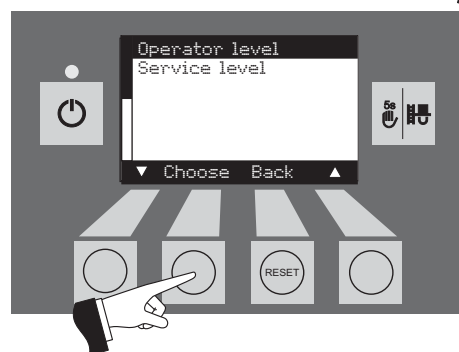


Fig. 91

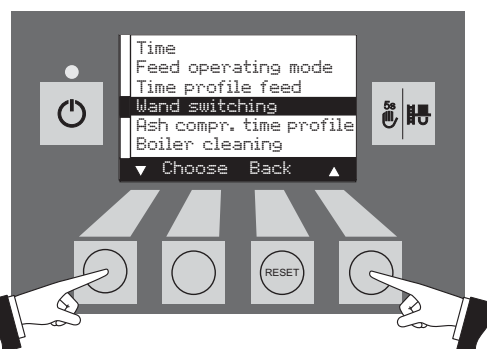


Fig. 92

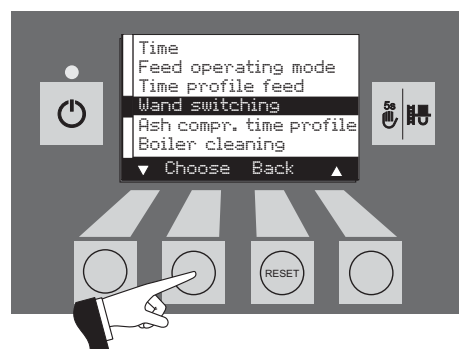
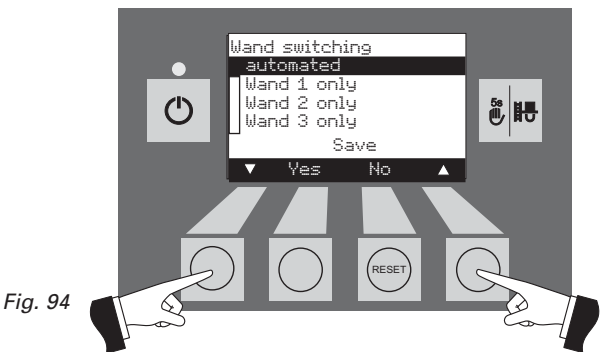


Fig. 93

Operation

The *arrow* buttons set the wand switching – Fig. 94.



Confirm the changed wand switching by pressing the *Yes* button – Fig. 95.

The display shows “Saving parameter value” for a few seconds (Fig. 96) and then changes back to the previous level. Tip: This menu item is also needed for “Pellet store maintenance” in order to switch off one specific wand at a time – see also the pellet store planning documents.

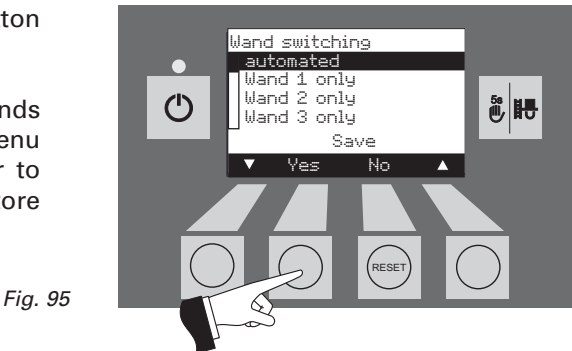


Fig. 95

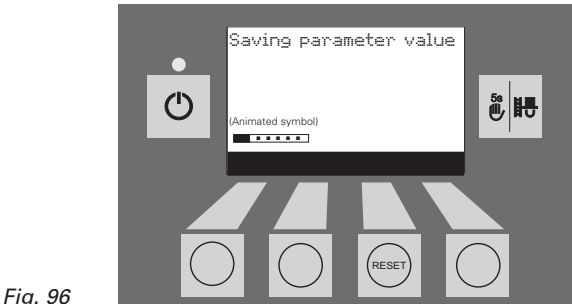


Fig. 96

The menu item or sub-menu item is exited by pressing the *Back* button (Fig. 97) or after a delay of 45 seconds.

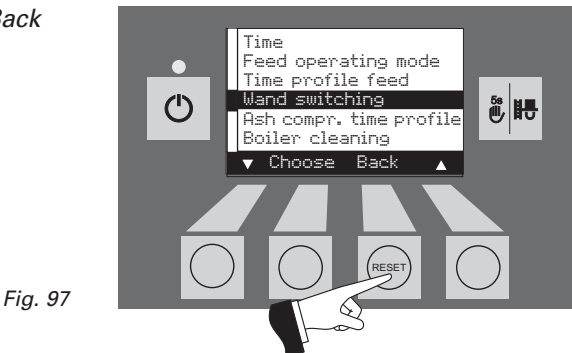


Fig. 97

Operation

2.8.1.5 Ash compression time profile

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 four menu buttons switches the lighting on – Fig. 98.

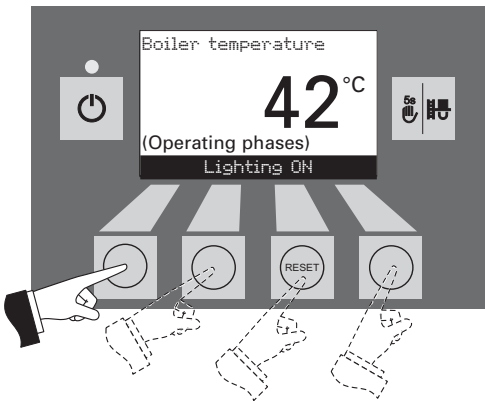


Fig. 98

Press the *Menu* button – Fig. 99.

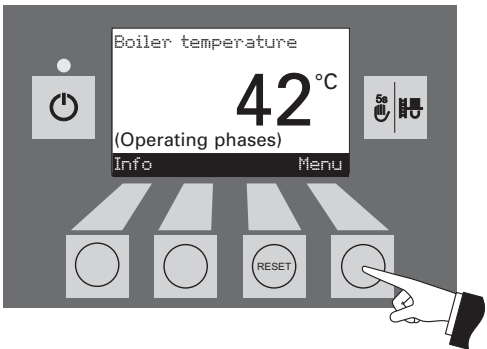


Fig. 99

Confirm the selected menu item “Operator level” by pressing the *Choose* button – Fig. 100.

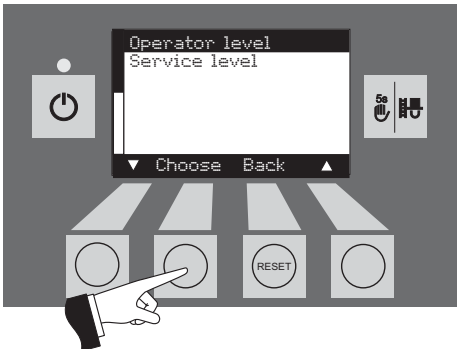


Fig. 100

The *arrow* buttons select the “Time profile ash compr.” sub-menu – Fig. 101.

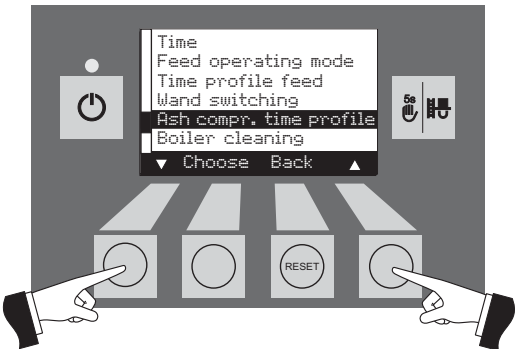


Fig. 101

Confirm the selected sub-menu “Time profile ash compr.” by pressing the *Choose* button – Fig. 102.

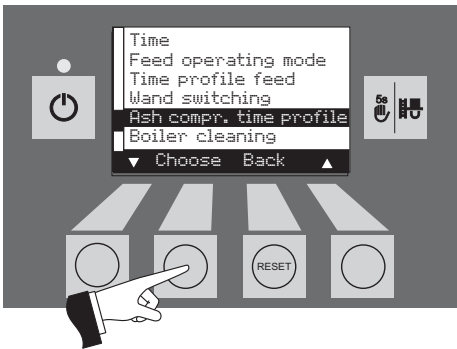
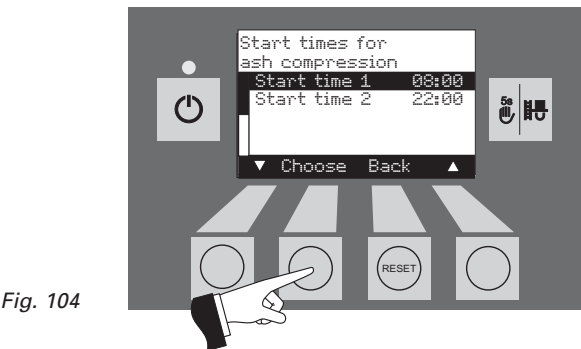
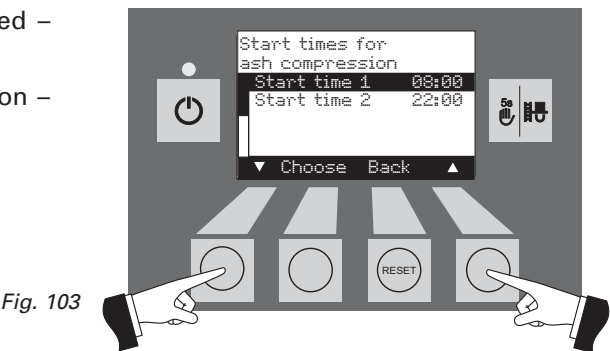


Fig. 102

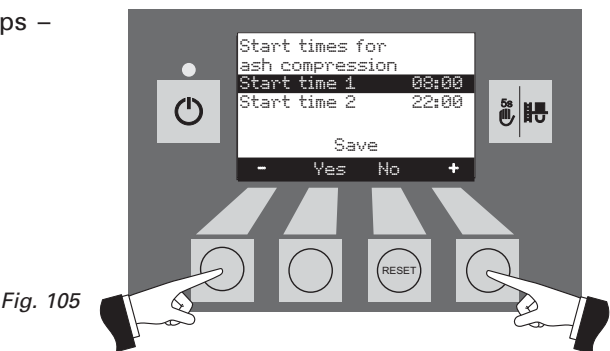
Operation

The *arrow* buttons select the start time 1 or 2 to be changed – Fig. 103.

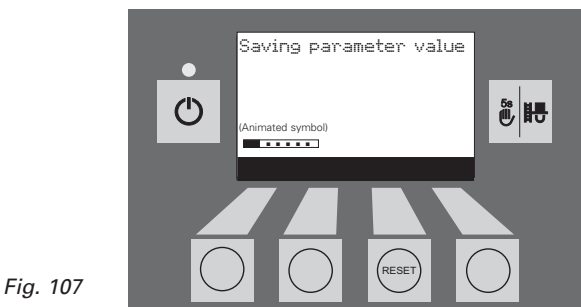
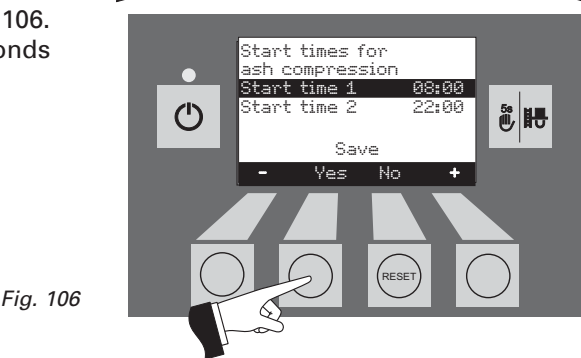
Confirm the selected start time by pressing the *Choose* button – Fig. 104.



Pressing the *+* or *-* buttons changes the time in 15 min steps – Fig. 105.



Confirm the changed time by pressing the *Yes* button – Fig. 106. The display shows “Saving parameter value” for a few seconds (Fig. 107) and then changes back to the previous level.



Operation

2.8.1.6 Boiler cleaning – Resetting the cleaning request

After boiler cleaning has been performed, the operating hours counter for boiler cleaning must be reset.

i **Without cleaning** (see section 3.4), the operating hours counter for boiler cleaning **cannot** be reset.

Pressing one of the four menu buttons switches the lighting on – Fig. 108.

Press the *Menu* button – Fig. 109.

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

The *arrow* buttons set the “Boiler cleaning” sub-menu – Fig. 111.

Confirm the selected “Boiler cleaning” sub-menu by pressing the *Choose* button – Fig. 112.

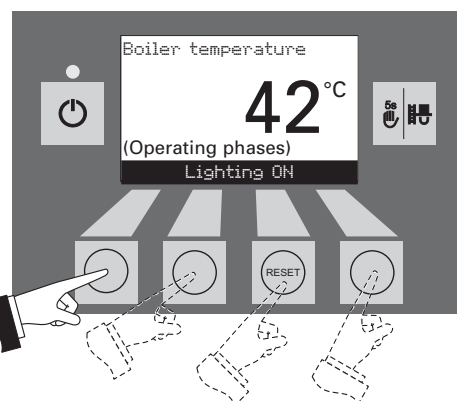


Fig. 108

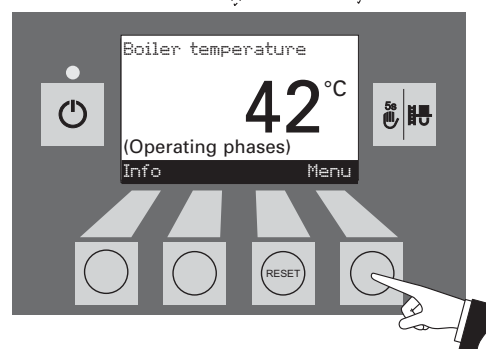


Fig. 109



Fig. 110

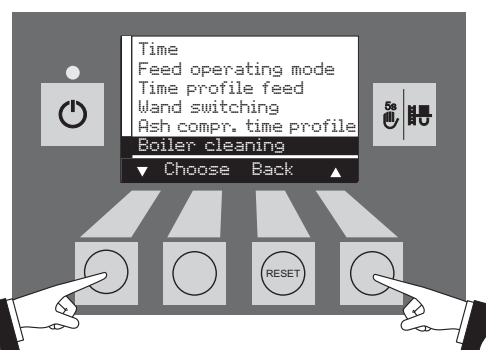


Fig. 111

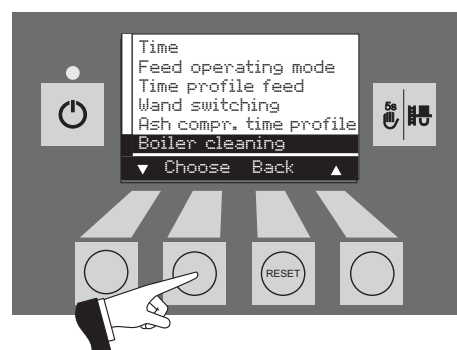


Fig. 112

Operation

Pressing the Yes button resets the operating hours counter for boiler cleaning – Fig. 113.

The display shows “Saving parameter value” for a few seconds (Fig. 114) and then changes back to the previous level.

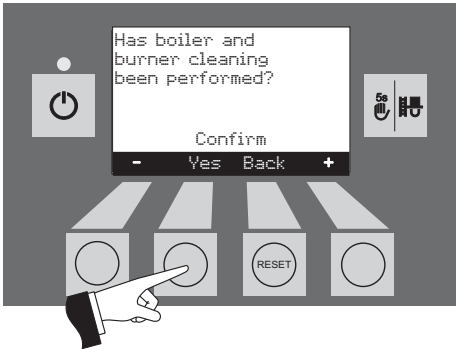


Fig. 113

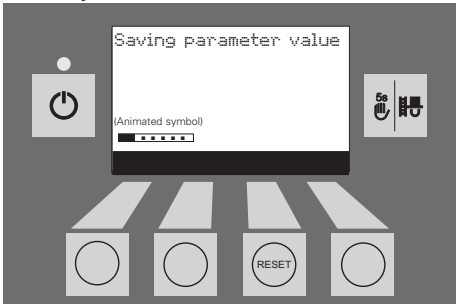


Fig. 114

2.8.2 Service level

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



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

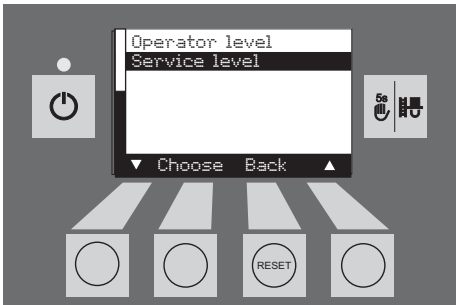


Fig. 115



Fig. 116

The menu item or sub-menu item is exited by pressing the Back button (Fig. 117) or after a delay of 45 seconds.

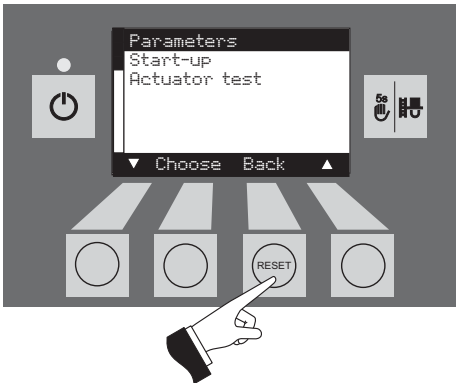


Fig. 117

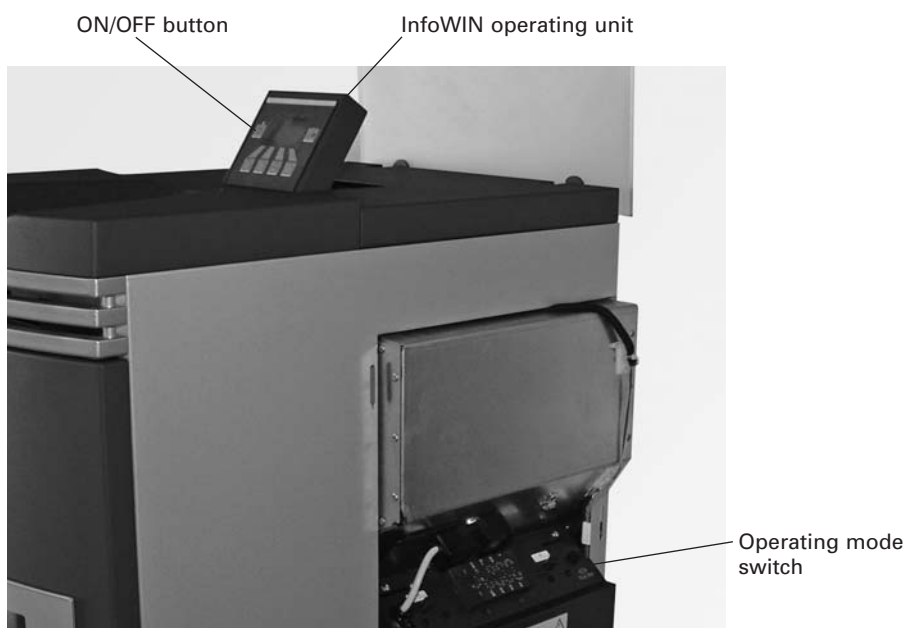
Operation

2.9 Heating system operation

2.9.1 FireWIN with MES system control

Switching on – automatic operation:

1. Press the ON/OFF button on the InfoWIN panel, the display lighting is 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 control module(s) to “Automatic operation”. The system operation (setting temperatures and operating times) is performed using the analogue or digital user module (installed in the living area) – for more details, please refer to the MES and user module instructions.



Digital user module FB 5210



Analogue user module FB 5410

Fig. 118 FireWIN with MES system control



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

Switching off:

1. Set the operating mode to “Standby” using the analogue or digital 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 unit.



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

Flue cleaning function:

This is operated using the InfoWIN 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 unit  (see section 2.5.5) will activate emergency operation to maintain heat and hot water.

Operation

2.9.2 FireWIN with REG standard control

Switching on – automatic operation:

1. Press the ON/OFF button on the InfoWIN panel, the display lighting is 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 to “Automatic operation” ☺. The REG standard control unit RAM 786 (installed in the living area) is used to operate the system (set the desired temperature and operating times) – please refer to the separate Operating instructions.

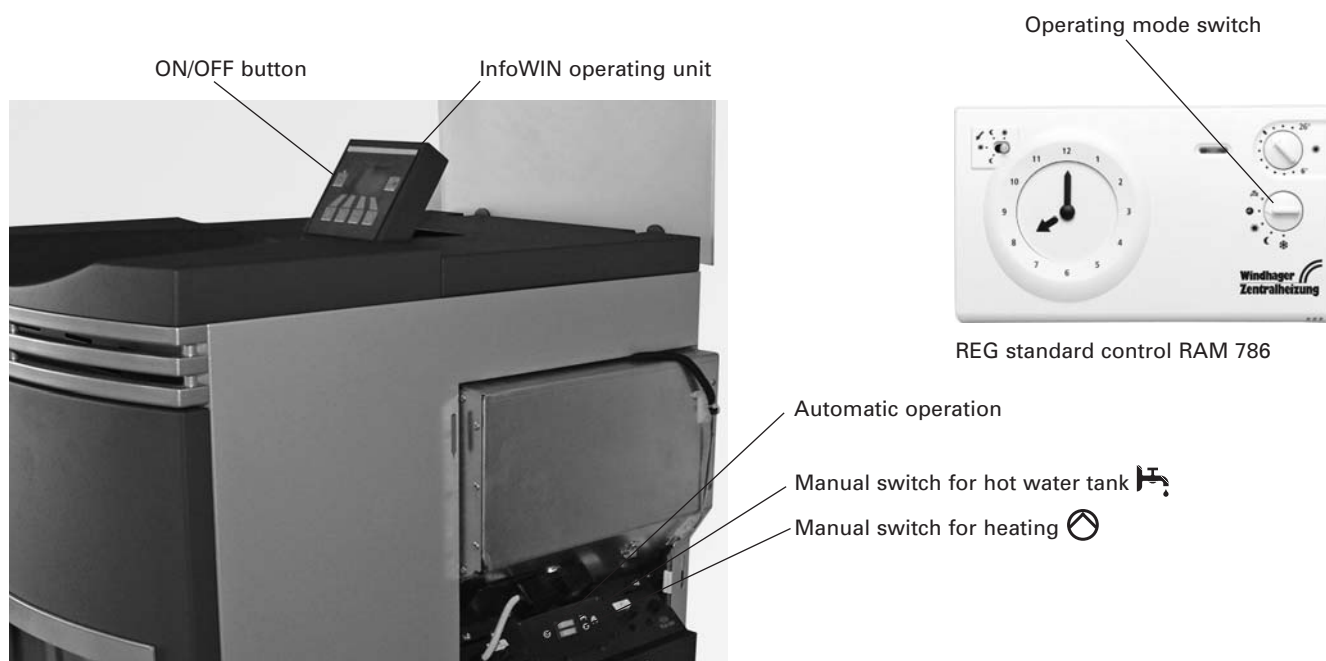


Fig. 119 BioWIN with REG standard control

Switching off:

1. Set “Standby” ❄ operating mode on the REG standard control unit (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 unit.



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

Flue cleaning function:

This is operated using the InfoWIN unit – see section 2.5.6.

Emergency operation:

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

Operation

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 unit).
2. Select "Manual operation"  on the InfoWIN 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 unit).
2. Select "Manual operation"  on the InfoWIN 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 unit).
2. Select "Manual operation"  on the InfoWIN unit – see section 2.5.5.
3. Set both manual switches to the "Manual operation"  and  position.

Care, cleaning and maintenance

3.1 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 ash first, then clean.

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

If you wish to enjoy a completely clear view of the fire through the glass window, perform this cleaning about every 1 or 2 days according to the amount of use during the heating season.

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).

3.2 Cleaning and operating implements

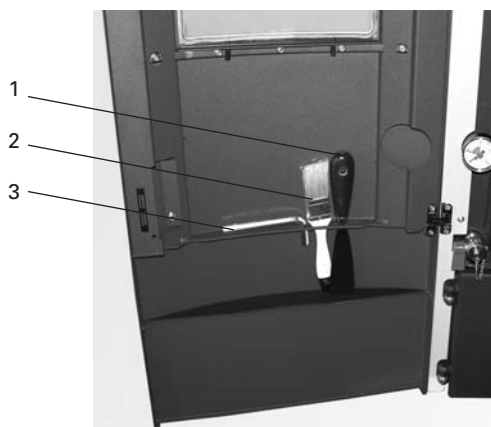


Fig. 120 Cleaning and operating implements in the cladding door



Fig. 121 Cone removal tool and grate removal tool

- 1 Spatula
- 2 Cleaning brush
- 3 Allen key for cleaning heating surfaces
- 4 Cone removal tool

3.3 Overview of intervals between maintenance

A clean boiler saves fuel and protects the environment. Fly ash and combustion residues must be cleaned off the pellet flue-connected boiler at regular intervals. Therefore always clean your boiler as required!

In addition to cleaning, annual maintenance is required. This is performed by WINDHAGER Customer Service or the customer service PARTNERS and is a prerequisite of the guarantee limitations.

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 to 12 kW).

The FireWIN is equipped with a cleaning interval display. The cleaning request for the combustion chamber and burner pot is displayed on the InfoWIN and must be reset after cleaning has finished – see section 2.8.1.6.

Tip: The intervals between maintenance can be determined according to the amount of pellets consumed. Therefore, read out and note down the pellet consumption* on the InfoWIN (section 2.7) in order to determine the individual intervals that apply to you.

* The pellet consumption is a calculated value and can differ from the actual value by $\pm 15\%$.

Care, cleaning and maintenance

Maintenance intervals	FireWIN Klassik	FireWIN Premium	FireWIN Exklusiv
Depending on pellet consumption approx. every 37 kg (~ 20 operating hours) See section 3.3	Fill pellets into the reserve supply container	–	–
Depending on pellet consumption approx. every 400 kg (~ 250 operating hours) See section 3.3	Empty the ash pan(s) Operate the heating surface cleaning lever Frequent use of the lever increases efficiency	Empty the ash pan(s) Operate the heating surface cleaning lever Frequent use of the lever increases efficiency	–
Depending on pellet consumption approx. every 800 kg (~ 500 operating hours) See section 3.4	Check the combustion chamber and burner pot, clean if necessary Empty the ash pan(s) Operate the heating surface cleaning lever Frequent use of the lever increases efficiency	Check the combustion chamber and burner pot, clean if necessary Empty the ash pan(s) Operate the heating surface cleaning lever Frequent use of the lever increases efficiency Check the FireWIN reserve supply container, if necessary remove ash	–
Depending on pellet consumption approx. every 1200 kg (~ 750 operating hours with average 70% boiler output) See section 3.4	–	–	Check the combustion chamber and burner pot, clean if necessary Check reserve supply container FireWIN, if necessary remove ash Empty the ash pan(s)
at least once per heating season See section 3.5	Clean the top heating surfaces and linkage Clean blower wheel and blower box Clean exhaust pipe to flue Check the reserve supply container, if necessary remove dust	Clean the top heating surfaces and linkage Clean blower wheel and blower box Clean exhaust pipe to flue Remove dust from reserve supply container and clean filter Check the storage room or storage container, if necessary remove dust	Clean the top heating surfaces and linkage Clean blower wheel and blower box Clean exhaust pipe to flue Remove dust from reserve supply container and clean filter Check the storage room or storage container, if necessary remove dust

Care, cleaning and maintenance

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 times at the latest before the ash pan is removed or the ash removed from the heating surfaces – Fig. 122.



Fig. 122 Connect the lever and operate it

FireWIN Exklusiv

The heating surfaces are cleaned fully automatically after the set start times (see section 2.8.1.5) and when approx. 15 kg of fuel has been consumed – on average 1x a day.

3.5 Ash pan, ash on heating surface



Always switch the boiler off first with the ON/OFF button (Fig. 123) and wait until burnout mode has finished. Do not open the combustion chamber and ash door during operation.

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

- 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 124.

Assembly:

- Push in the ash pan(s), close the doors.
- Switch the FireWIN back on with the ON/OFF button.



Fig. 123 Switching off FireWIN



Fig. 124 Empty the ash pan(s) or remove the ash from the heating surface duct



When emptying the ash pan(s), remember that there could still be embers in the ash!

Care, cleaning and maintenance

3.6 Combustion chamber (baffle plate, temperature sensor)

The FireWIN is equipped with a cleaning interval display. The cleaning request for the combustion chamber and burner pot is displayed on the FireWIN Klassik and Premium after 500 operating hours, on the FireWIN Exklusiv after 750 operating hours and must be reset after cleaning has finished – see section 2.8.1.6. “Boiler cleaning – Resetting the cleaning request”.



Do not open the combustion chamber door during operation. Always switch the boiler off first with the ON/OFF button (Fig. 125) and wait until burnout mode has finished. It is essential to let the boiler cool down before cleaning.

- Open the combustion chamber door, lift the baffle plate at the right and guide it out at an angle with the left side downwards – Fig. 126, Taking out the baffle plate and removing fly ash
- If necessary, remove fly ash from the temperature sensor with a cleaning brush. The temperature sensor is located at the top left of the combustion chamber behind the baffle plate – Fig. 127.

Assembly:

By working through these steps in reverse order.



Fig. 125 Switching off FireWIN



Fig. 126 Removing and cleaning the baffle plate



Temperature sensor

Fig. 127 Cleaning the temperature sensor (with cleaning brush)

Care, cleaning and maintenance

Burner pot



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.



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

If the level of combustion residue in the burner pot is more than 4 cm above the grate plate, perform cleaning as follows:

- Lift out the cone using the removal tool – Fig. 128.
- Use the spatula to scrape off the deposits from all sides of the cone, however in particular on the underside.
- Vacuum out the burner pot, remove the primary air pin and carefully clean the holes with a small screwdriver or drill bit if necessary (holes must be clear).
- Lift the grate plate from below using the removal tool and remove it (Fig. 129), scrape off ash residues from the top and bottom of the grate plate and from the hole in the middle using the spatula to clean it.
- Use a spatula to scrape the edges out clean all round the inside of the burner pot at the bottom. All secondary air holes must be clear, clean them with a small screwdriver or drill bit if necessary.
- Remove combustion residues from the burner pot and the grate with a spatula and clean with a vacuum cleaner. Vacuum the ash out of the primary air tube (in the middle of the burner pot).

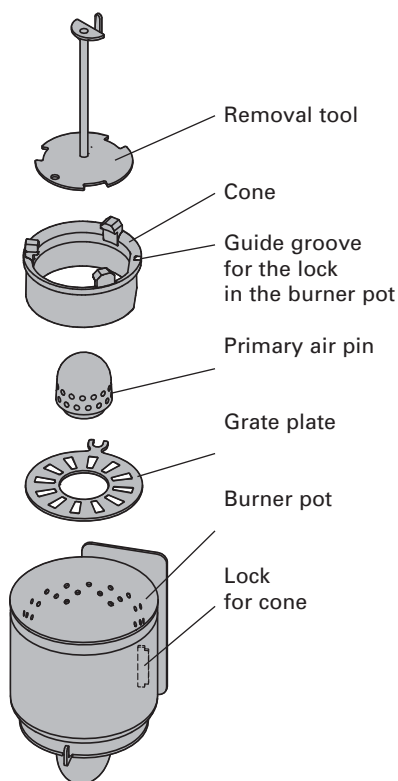


Fig. 128 Burner pot

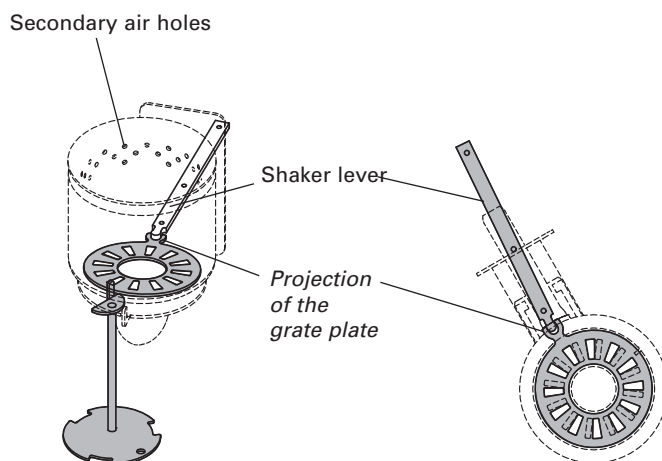


Fig. 129 Removing the grate disc

Fig. 130 Installing the grate disc – view from above

Assembly:

- Insert the grate plate, making sure the projection of the grate plate projects through the opening of the burner pot into the shaker lever – Figs. 129, 130.
- Place the cone into the burner pot using the removal tool. The grooves in the cone must project into the lock of the burner – Fig. 128.

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

- Insert the primary air pin.

Care, cleaning and maintenance

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 2.8.1.2 Setting the feed operating mode).

Cleaning

FireWIN **without** fully automated pellet feed:

- Switch off the FireWIN with the ON/OFF button on the InfoWIN (Fig. 131) 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. 132) and vacuum out the pellets, dust or foreign bodies through the mesh using a vacuum cleaner.



Fig. 131 Switching off FireWIN



Fig. 132 Folding open the cover

FireWIN **with** fully automated pellet feed:

- Switch off the FireWIN with the ON/OFF button on the InfoWIN (Fig. 133) and wait until the display has gone out.
- Remove the cover at the front – Fig. 134.



Fig. 133 Switching off FireWIN



Fig. 134 Folding open the cover

- Remove the screw on the front of the reserve supply container cover (Fig. 135), **close the glass cover – danger of damage** – and open the reserve supply container cover – Fig. 136.



Fig. 135 Switching off FireWIN



Fig. 136 Folding open the cover

Care, cleaning and maintenance

- Remove both knurled screws (Fig. 137) and fold open the inspection cover (Fig. 138).
- Remove dust (bridge formation) from the container using a vacuum cleaner.
- Close the inspection cover again and screw it on with knurled screws.

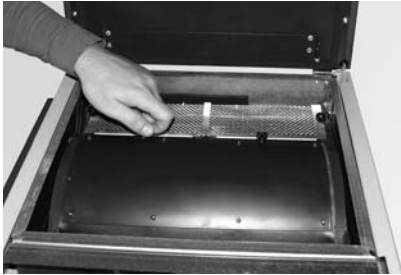


Fig. 137 Removing the knurled screws

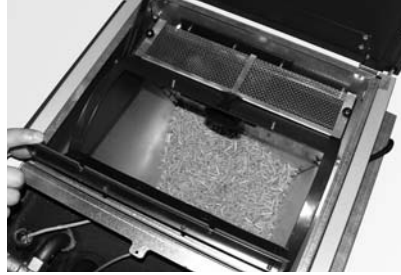


Fig. 138 Folding open the inspection cover, removing dust

- Remove both knurled screws at the back from the coarse filter (Fig. 139) and remove the coarse filter (Fig.140).
- Remove pellets and dust using a vacuum cleaner.
- Put the coarse filter back on and screw it on with knurled screws.



Fig. 139 Removing the knurled screws

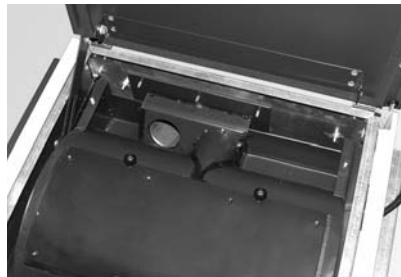


Fig. 140 Removing the coarse filter, removing pellets and dust

Assembly:

By working through these steps in reverse order.

Care, cleaning and maintenance

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.



Always switch the boiler off first with the ON/OFF button (Fig. 141) and wait until burnout mode has finished. It is essential to let the boiler cool down before cleaning.

- Remove the front cover (tip: open the cover of the reserve supply container first) – Fig. 142.



Fig. 141 Switching off FireWIN



Fig. 142 Removing the cover

- Unscrew two wing nuts from the heating surface cover and remove the complete cover – Fig. 143.
- Remove the jet protection plate (tip: vacuum out fly ash first using a vacuum cleaner) – Fig. 144.



Fig. 143 Removing the wing nuts and cover



Fig. 144 Removing the jet protection plate

- Vacuum off the top heating surfaces and linkage or use a cleaning brush to clean them – Fig. 145.
- 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. 146.



Fig. 145 Cleaning top heating surfaces and linkage



Fig. 146 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. 147.



Fig. 147 Removing the ash pan(s) or removing the ash

Care, cleaning and maintenance

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.



It is essential to let the boiler cool down before cleaning.

- Unhook the right side panel cladding and disconnect the mains power plug over the control panel – Fig. 148
- Remove the screw under the mains power plug on the control panel (Fig. 148) and swivel open the control panel.

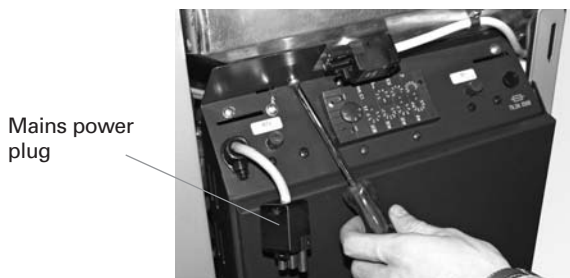


Fig. 148 Removing the power plug and screw

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.

Cleaning:

- Pull the pressure hose off the pressure measuring nipple (Fig. 149) and clean the induction opening in the pressure measuring nipple, e.g. using a small screwdriver, drill bit or the like – Fig. 150.
- Push the pressure hose back onto the measuring nipple.

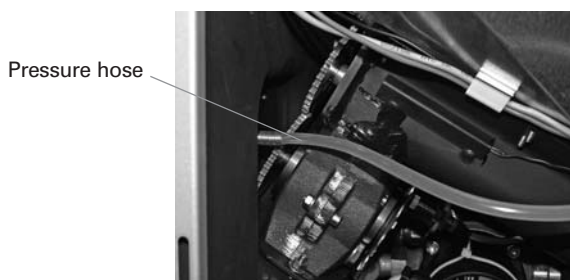


Fig. 149 Pulling off the pressure hose

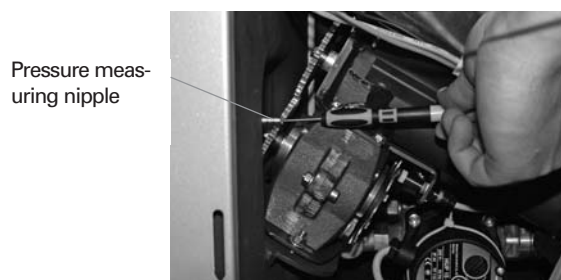


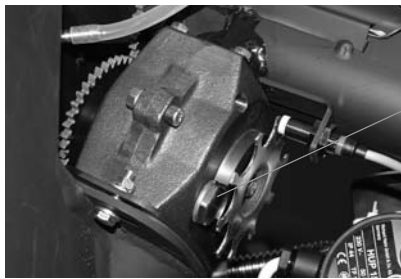
Fig. 150 Cleaning the induction opening with a small screwdriver or the like

3.9.2 Rotary feeder

Cleaning:

- Unscrew the screw plug from the rotary feeder (Fig. 151) and vacuum pellet dust out of the rotary feeder using a vacuum cleaner.
- Screw the screw plug back in.

Care, cleaning and maintenance



Screw plug

Fig. 151 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. 152). Clean fly ash out of the exhaust pipe with a vacuum cleaner. Close the cleaning cover again.
- Disconnect the blower plug – Fig. 153.



Fig. 152 Removing the wing nuts and cleaning the exhaust opening – cleaning the exhaust pipe



Fig. 153 Disconnecting the blower plug

- Unscrew two wing nuts from the blower box and remove the complete blower unit – Fig. 154.
- Clean the blower wheel using a spatula and brush – Fig. 155.
- Clean fly ash out of the inside of the blower box with a vacuum cleaner.



Fig. 154 Removing wing nuts, removing the blower unit



Fig. 155 Cleaning the blower wheel

Assembly:

- Guide the blower unit in at the back using the staybolts 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.

Troubleshooting

The FireWIN pellet boiler is self-monitoring during operation. All deviations from normal operation are displayed on the InfoWIN 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. 155.

Pressing the *Info* button (Fig. 156) displays the related information text (Fig. 157). To exit the information text menu, press the *Back* button (Fig. 157) or wait 10 seconds and the information, fault or alarm message is displayed again – Fig. 156.

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. 156.

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.

Pressing the *Test* button changes to the actuator test immediately. This function is only intended for trained service personnel (directions for setting, see the FireWIN installation instructions).

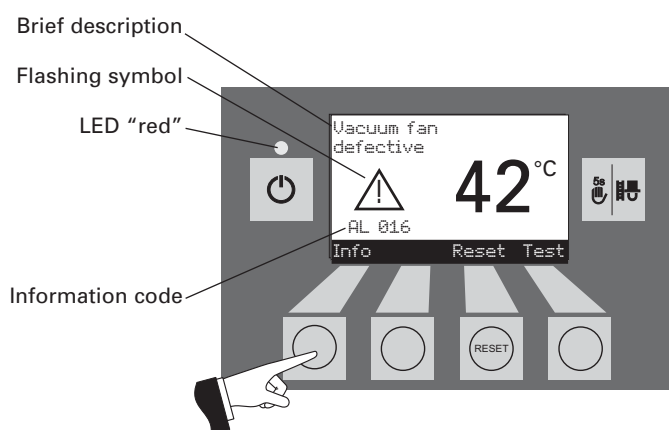


Fig. 156

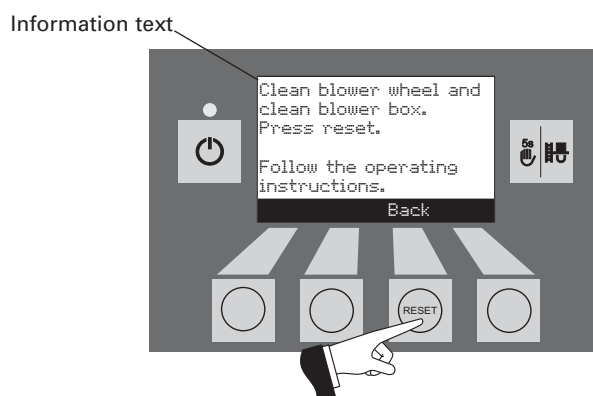


Fig. 157

Pressing the *Back* button (Fig. 158) exits the actuator test.

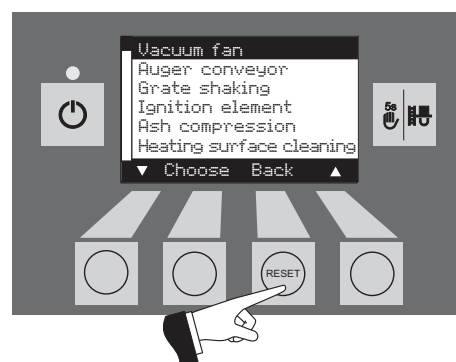


Fig. 158

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

The rating plate is located behind the cladding door between the combustion chamber door and the ash door – Fig. 159.

Rating plate



Fig. 159 Rating plate

Troubleshooting

4.1 No display on InfoWIN

Code	Meaning/effect	Cause/remedy
–	No display 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 renew if necessary, see page 55, Fig. 159. c) InfoWIN plug loose or poorly connected together during installation – check and connect together firmly if necessary, plug is located on the side at the top behind the right side panel cladding – see installation instructions; Installing the cladding.

4.2 Information messages

Code	Meaning/effect	Cause/remedy
IN 581	Replenish fuel Limit switch in the reserve supply container has switched, boiler continues to heat until the remaining fuel quantity has been consumed.	The reserve supply container is almost 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 2.8.1.2). In “Feed operating mode” menu item, set to “with enable time”, “with start time” or “without time control”.
IN 582	Reserve supply container empty Reserve supply container is empty, burner 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 2.8.1.2). In “Feed operating mode” menu item, set to “with enable time”, “with start time” or “without time control”.
IN 590	Clean boiler and burner Boiler and burner are still operating.	Boiler and burner must be cleaned (see sections 3.4, 3.5 and 3.6). Following cleaning, confirm cleaning on the InfoWIN operator level (see section 2.8.1.6).
IN 595	Cladding door open Cladding door is open, burner locked.	a) Close the cladding door. b) Door switch on cladding door does not switch correctly, adjust – see installation instructions.

4.3 Fault messages

Code	Meaning/effect	Cause/remedy
FE 206	Monitoring of the auger conveyor is defective 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 in No pellet feed is possible. The boiler does not operate.	a) No pellets at the suction wand – Set “Wand switching” to “automated” or select another wand (see section 2.8.1.4). Press the Reset button. b) Feed hose blocked at the 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 2.8.1.2). Fill the reserve supply container with pellets by hand, boiler is allowed to continue operating without feed.

Troubleshooting

Code	Meaning/effect	Cause/remedy
FE 239	Wand switching defective 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 2.8.1.2). Fill the reserve supply container with pellets by hand, boiler is allowed to continue operating without feed.
FE 356	Combustion chamber pressure not stable The boiler is in operation.	a) Heating surface cover leaking, check whether firmly closed (see section 3.8), press the Reset button. b) Combustion chamber and ash door leaking, check the seal, renew 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.
FE 381	Reserve supply container empty Feed is outside the enable time.	Enable time for the feed has been set too short, which means the pellets in the reserve supply container are used up and the feed is blocked. Extend the enable time for the feed in the “Feed operating mode” menu item (see section 2.8.1.3) or operate “with start time” or “without time control” (see section 2.8.1.2).
FE 382	Fill level switch (proximity switch) in reserve supply container does not switch The boiler does not operate.	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 2.8.1.2). 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 The boiler enters cyclic operation, i.e. boiler stops during operation.	a) Boiler and burner must be cleaned or the ash pan(s) emptied (see sections 3.4, 3.5 and 3.6). Following cleaning, confirm cleaning on the InfoWIN operator level (see section 2.8.1.6). b) Motor or limit switch of ash compactor defective, inform Windhager Customer Service or a heating technician.

4.4 Alarm messages

Code	Meaning/effect	Cause/remedy
AL 005	Grate shaking defective Shaker motor no longer moves or no longer reaches the end position, boiler switches to burnout mode.	a) Grate disc sticking, clean burner pot (see section 3.6), press the Reset button. b) Shaker motor defective, inform Windhager Customer Service or a heating technician. c) Limit switch defective, inform Windhager Customer Service or a heating technician.
AL 006	Auger conveyor motor defective Boiler enters burnout mode, vacuum fan is stopped immediately.	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 auger conveyor motor, inform Windhager Customer Service or a heating technician.

Troubleshooting

Code	Meaning/effect	Cause/remedy
AL 016	Vacuum fan defective The actual speed is different from the nominal speed. The boiler switches to burnout mode.	a) The blower wheel and blower box are dirty, 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 choke defective (optional) External air choke does not open.	a) Check the air choke, press the Reset button. b) Inform Windhager Customer Service or a heating technician.
AL 071	Emergency heating/OFF switch switched off Boiler enters burnout mode, however the blower does not run.	Switch on emergency heating/OFF switch.
AL 076	Boiler sensor defective 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	Temperature sensor defective 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 temperature sensor, inform Windhager Customer Service or a heating technician.
AL 128	No flame formation in control mode The flame goes out in modulation mode. The boiler switches to burnout mode.	a) Clean the burner and the boiler. Check the exhaust pipe to the flue and clean it if necessary, press the Reset button. b) Auger conveyor or rotary feeder jammed due to a foreign body, clean the reserve supply container (see section 3.7) and remove the foreign body through the opening above the auger, refill the reserve supply container. The alarm message AL 171 may light on up to 2 occasions until the boiler starts operating again, press the Reset button. c) Inform Windhager Customer Service or a heating technician.
AL 133	Safety thermostat has tripped Boiler temperature is above 100 °C, boiler enters burnout mode, vacuum 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. 160. If the malfunction occurs after a short period, or recurs at regular intervals, contact Windhager Customer Service or your heating technician.
AL 135	Excess temperature in the auger tube The boiler switches to burnout mode.	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. 160). 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 high temperature).

Troubleshooting

Cover of safety thermostat
auger tube B7a



Cover of safety thermostat B7

Device fuse T 6.3 A

Fig. 160 FireWIN control panel, rear right side panel removed

Code	Meaning/effect	Cause/remedy
AL 156	No negative pressure in the combustion chamber The boiler switches to burnout mode.	a) Heating surface cover leaking, check whether firmly closed (see section 3.7), press the reset button. b) Combustion chamber and ash door leaking, check the seal, renew 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 up time exceeded 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 on up to 2 occasions, press the Reset button. b) Clean the burner pot (see section 3.6), empty the ash pan in Klassik/Premium, press the reset button. c) Too much dust in the reserve supply container – bridge formation, remove the dust (see section 3.6), press the reset button. d) Auger conveyor or rotary feeder jammed due to a foreign body, clean the reserve supply container or rotary feeder (see section 3.7) and remove the foreign body, refill the reserve supply container. 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 automatic firing device The boiler switches to burnout mode.	a) Check the connection cable or InfoWIN plug connection to the automatic firing device, inform Windhager Customer Service or a heating technician. b) Connect the automatic firing device, inform Windhager Customer Service or a heating technician.
AL 188	Internal error occurred ErrorCode 188 Current TableID 4 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.

Guarantee and warranty limitations

The guarantee and warranty limitations require that the boiler and related accessories be properly installed and started up by WINDHAGER Customer Service or Customer Service PARTNER; otherwise the manufacturer's guarantee will not be honoured.

Malfunctions resulting from improper operation or adjustment as well as use of poor or not recommended fuel types are not covered by the guarantee and warranty. Further, the warranty shall be void if equipment other than those provided by WINDHAGER are installed. The special warranty restrictions for your system are available in the "Warranty Conditions" folder supplied with your boiler.



Start-up and regular maintenance 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 service contract.

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