

HSP 4.0-F2

Equipment sheetPellet stove



Of utmost importance there are the notes entitled **WARNING**. The notes entitled **WARNING** advise you on serious danger of damage to the heating device or of an injury.



The note entitled **Notice** advises you on possible damage to your heating device.



The note entitled **Important** calls your attention to the information important for the operation of your heating device.



The note itself calls your attention to the information important for the operation of your heating device in general.

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1. Technical data

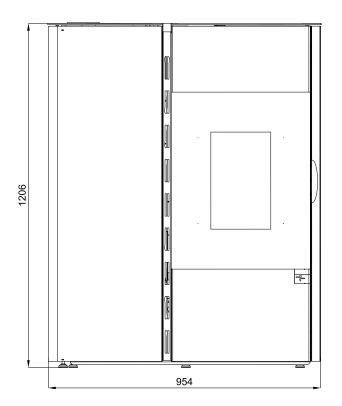
]	HSP 4.0-F2 456.08		
	Nominal output	Partial output 50%	Partial output 30%
Heat output range:	8,5 kW	3,8 kW	2,4 kW
Nominal heat output:		8,5 kW	
Height:		1209 mm	
Width:		954 mm	
Depth:		433 mm	
Weight:		232 kg	
Diameter of flue elbow:		80 mm	
Flue gas temperature:	132 °C	65 °C	64 °C
Testing transport pressure:	12 Pa	5 Pa	5 Pa
Flue gas flow rate in g/s:	5,4 g/s	3,8 g/s	3,2 g/s
CO level in flue gas (%) (min./max.)	0,0013 %		
Efficiency:	94 %	95,3 %	96,1 %
CO level in flue gas:	16 mg/Nm³	199 mg/Nm³	268 mg/Nm ³
NOx level in flue gas:	79 mg/Nm³	74 mg/Nm³	55 mg/Nm³
OGC level in flue gas:	2 mg/Nm³ 8 mg/Nm³ 12 r		12 mg/Nm³
Proportion of dust in flue gas:	5 mg/Nm³ 10 mg/Nm³ 19 mg/Nm		
Contents of storage container (pellet tank):		about 40 kg	
Duration of burn with one charge (min./max.):	about 21 h	about 44 h	about 44 h
Permitted fuel: Low-dust wood pellets		diameter: 6 mm	
to Ö-Norm M 7135, DIN plus, EN plus-A1		length: max. 30 mn	n
Room heating capacity to Ö-Norm M 7521:		max. 230 m³	
Room heating capacity to DIN 18893, constant heating:		250m³/145m³/98m	3
Room heating capacity to DIN 18893, timed heating:	165m³/95m³/65m³		
Electricity supply:	230 V (50 Hz)		
Electricity supply input:			
in normal operation:	18,9 W		
Electric ignition (for max. 15 minutes on ignition):	max. 380 W		
Fuses for the ignition, screw conveyor motor, induced draught, (F1)			

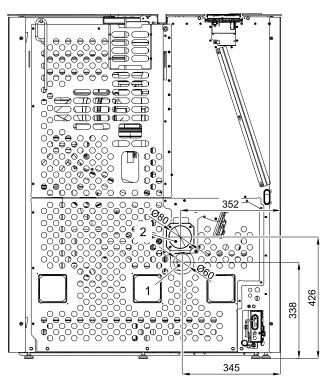
Safety distances

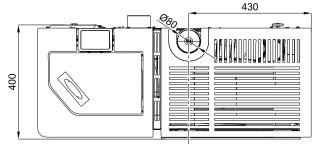
	side left:	2 cm
Mississal distances from flamenachla materials.	side right:	8 cm
Minimal distances from flammable materials:	rear:	5 cm
	front (radiation area):	80 cm

2. Dimensions

2.1. Flue-pipe conn on the top



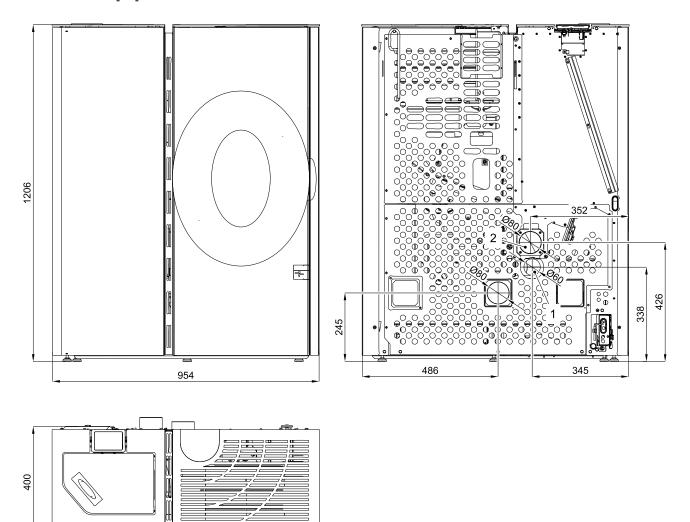




Pos. 1: for external air input

Pos. 2: convection air for 2nd room

2.2. Flue-pipe conn rear



Pos. **1**: for external air input Pos. **2**: convection air for 2nd room

3. Cleaning work



Before starting any cleaning work, the stove must be cool down!

Once the cleaning work is completed, the correct operating status of the device must be reestablished: Put the combustion pot in correctly, close the combustion chamber door.

3.1. Cleaning the surface

Dirt on the upper surface of the stove may be cleaned off with a damp cloth or if necessary with mild soapy water. You are advised against using corrosive cleaning agents and solvents since these might damage the surfaces.

3.2. Cleaning the glass panel

To clean the viewing panel, you must first open the stove door. Dirt on the glass panel can be removed with a glass cleaner or with a damp sponge on which you have sprinkled some of the wood ash present. (Environmentally friendly). Cleaning the glass panel may only be done with a cooled down stove in the OFF operating mode.

3.3. Clean combustion chamber "function instruction" Error F040

- The whole combustion space must be cleaned after 50-hours operation at the latest, or once a week.
- The requirement to clean the fire-box (flickering of the display) appears during heating, in case that the cleaning interval has elapsed.
- After the fire-box has been cleaned, the error message "Clean the fire-box" will be confirmed automatically.
 The condition for automatic confirmation of this error message is that the fire-box door is opened for more than 60 seconds. This time is necessary for careful cleaning of the fore-box, including the burner.
- This reset of the operating hours counter occurs even if the cleaning of the combustion chamber is performed before the 30 operating hours have run provided that the stove is in "Off" operating status and the door is open for longer than 60 seconds during cleaning.

3.4. Cleaning the combustion pot - weekly

During operation, deposits may form in the combustion pot. How quickly the combustion pot becomes dirty depends solely on fuel quality. The deposits or encrustations must be removed from time to time.



WARNING

If this is not done, the clinker will continue to accumulate. Then the device will no longer be able to ignite properly. Pellets can pile up in the combustion pot. In extreme cases, this can reach all the way back to the pellet chute. Backfire in the pellet container and smouldering in the pellet tank might possibly result.

This will destroy your device and is not covered in your guarantee.



Cleaning the combustion pot may only be done with a cooled down stove in "OFF" operating mode. Otherwise there is a risk of burns!

• Clean the burner with the supplied tool. (By scraping the burner wall, dirt falls down through the cleaning roller into the ash pan.)



WARNING

Do not dismantle the burner!

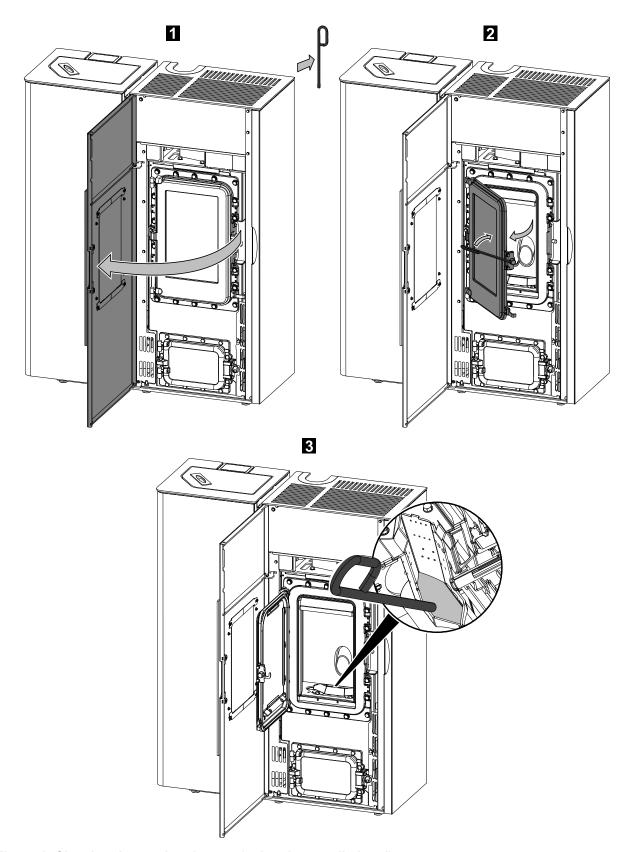


Figure 1: Cleaning the combustion pot (using the supplied tool)

4. Maintenance work



WARNING

Before starting any cleaning work, the stove must be cool down! The mains plug must be pulled out of the power supply socket (always in advance)!

The frequency of maintenance in turn depends to a large extent on the pellet quality (ash content). Quality pellets have a low ash content of about 0.2-0.3%. However, if the ash content is higher (0.5% and over), the interval from maintenance to maintenance is reduced and the accumulation of ash increases by 2 or 3 times.



WARNING

Devices that are not maintained in accordance with our specifications must not be operated. Failure to observe this point will invalidate all guarantee claims.

4.1. Cleaning of the ash pan - once a week

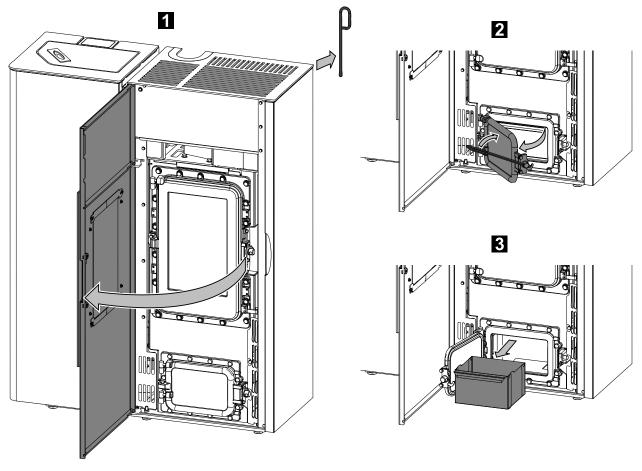


Figure 2

4.2. Cleaning the flue gas passes



CAUTION

Check and clean the flue-gas ways, exhaust (flue-gas) fan and flue-gas ducts at the latest after **1000 kg** of pellets have been consumed. Clean with a brush or an ash extractor.



CAUTION

After completion of the cleaning make sure that when putting back the covers, the seals are seated in the right positions. It is essential to replace defective seals.

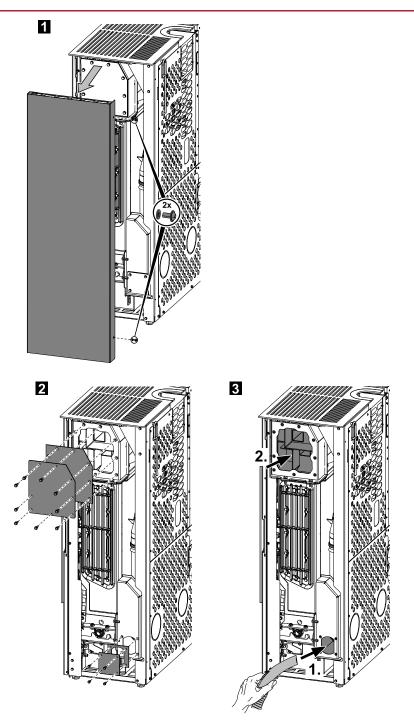


Figure 3: Removing the side wall

4.2.1. Cleaning the flue baffle

After consuming 1000 kg of pellets or after a year of operation, it is necessary to clean the deflector using the enclosed tool.



CAUTION

To remove the deflector, you must retract the flame temperature sensor - otherwise the deflector cannot be removed.

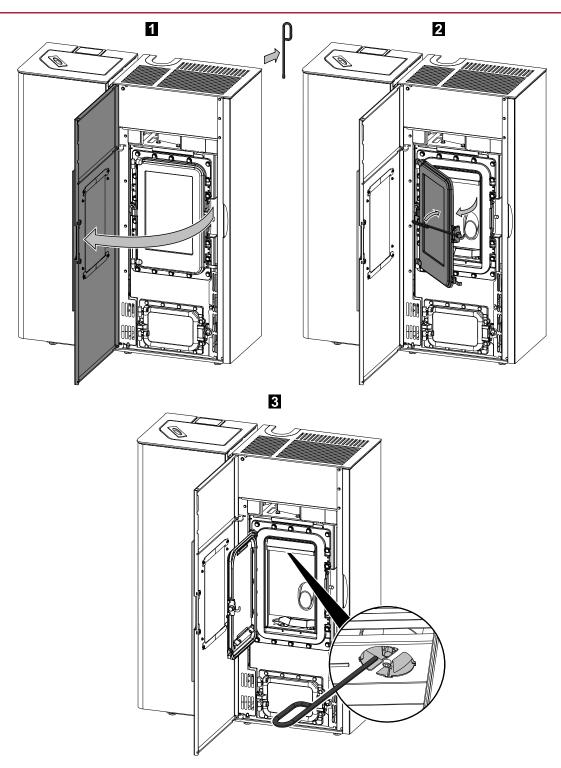


Figure 4: Cleaning the flue baffle

4.3. Cleaning the pellet container - annual maintenance

- · Heat the pellet stove until the storage tank is completely empty.
- Then the protective grille (1) in the pellet tank may be removed.
- Then clean the tank and the intake of the screw conveyor housing with a vacuum cleaner.
- After cleaning, it is essential to put back the protective grille. When doing this, make sure that no screws fall into the pellet tank so as to avoid consequential damage to the screw conveyor.

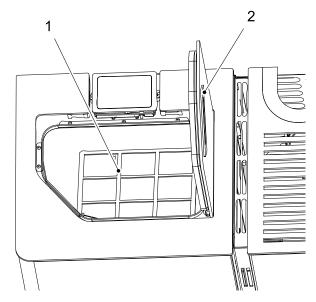
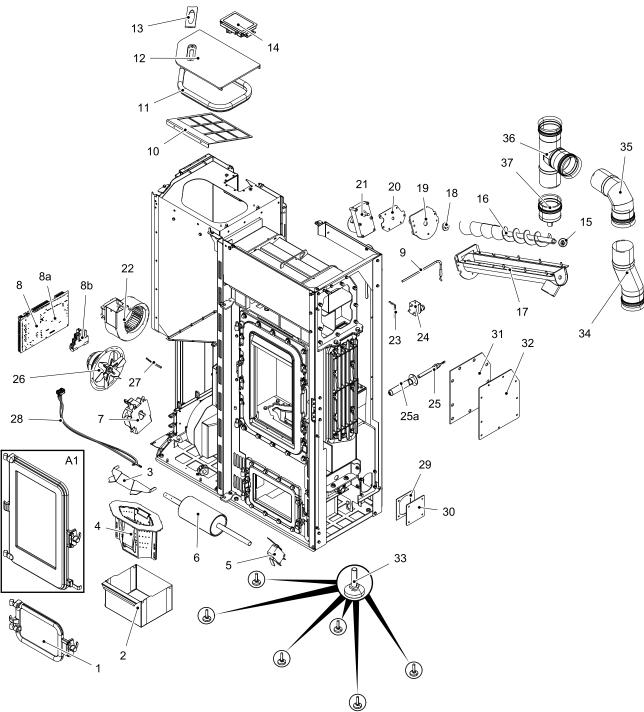


Figure 3: Pellet tank
1 Protective grille
2 Tank cover

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5. Replacement parts list

5.1. Replacement parts list (without trim parts)

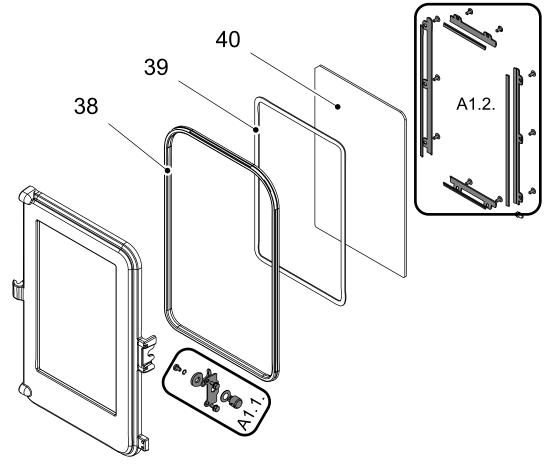


Pos.	Description	Piece	No. PR
	Replacement parts list (without trim parts)		
A1	Complete combustion chamber door/ anthracite	1 piece	0545508005300
1	Ash-pan door/anthracite	1 piece	0545908005520

2	Ash pan	1 piece	0545908005604
3	Protection grate	1 piece	0545508005739
4	Burner	1 piece	0545508005820
5	Door contact switch	1 piece	0089500040005
6	Cleaning roller	1 piece	0545508905130
7	Screw conveyor motor	1 piece	0089500880005
8	Complete control unit	1 piece	0545508005576
8a	Backup battery CR 2032	1 piece	-
8b	Relay	1 piece	0545508005583
9	Flame temperature sensor	1 piece	0553808005541
10	Protective grille	1 piece	0545608005911
11	Seal, tank cover (910 mm)	1 piece	0561008006197
12	Tank cover/black-glossy	1 piece	0545608005681
13	Grip	1 piece	0545608005218
14	Operator console	1 piece	0545508005600
15	Lower screw conveyor bearing	1 piece	0571207005027
16	Screw conveyor	1 piece	0545608015030
17	Conveyor	1 piece	0545608015060
18	Collet	1 piece	0545508015125
19	Motor plate 1	1 piece	0545508015042
20	Motor plate 2	1 piece	0545508005124
21	Screw conveyor motor	1 piece	0089500880005
22	Conv. fan	1 piece	0545508005220
23	Room temperature sensor	1 piece	0089500390005
24	ОС	1 piece	0089500080005
25	Ignition	1 piece	0545608005202
25a	Lighter case	1 piece	0545608005215
26	Induced draught fan	1 piece	0561008005808
27	Flue gas thermosensor	1 piece	0553808005540
28	Differential pressure sensor	1 piece	0545508005480
29	Seal	1 piece	0545608005231
30	Cover	1 piece	0545608015202
31	Seal	1 piece	0545508005086
32	Cover	1 piece	0545508025087
33	Stand	6 piece	0551908506005
34	Flue way S-bend	1 piece	0545508006123
35	Flue way bend	1 piece	0545508006145
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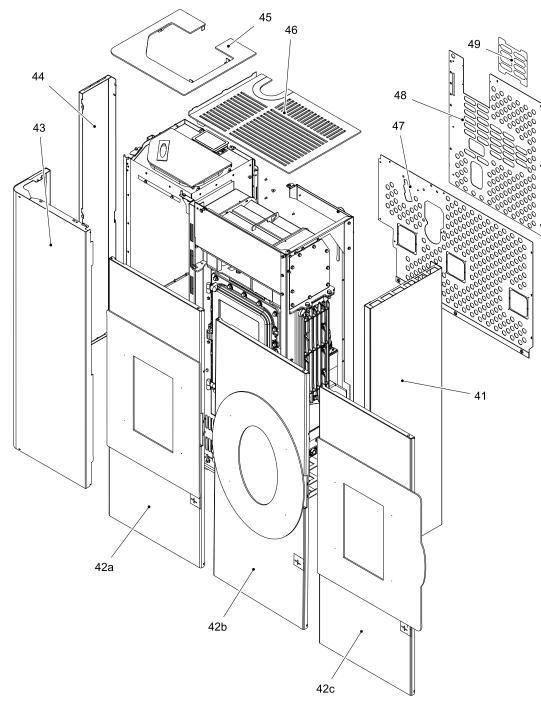
36	Flue way T-piece	1 piece	0545508006120
37	Condensate collector	1 piece	0545508006130

5.2. Detail A1



Pos.	Description	Piece	No. PR
	Detail A1		
A1.1.	Screwing door — Set	1 piece	0545508005301
A1.2.	Glass holder/anthracite - Set	1 piece	0545508005302
38	Seal door 16 mm (1500 mm)	1 piece	0040300160005
39	Seal glass 10x4 mm (1320 mm)	1 piece	0040210040005
40	Door glass (4x239x376)	1 piece	0545908005313

5.3. Replacement parts list

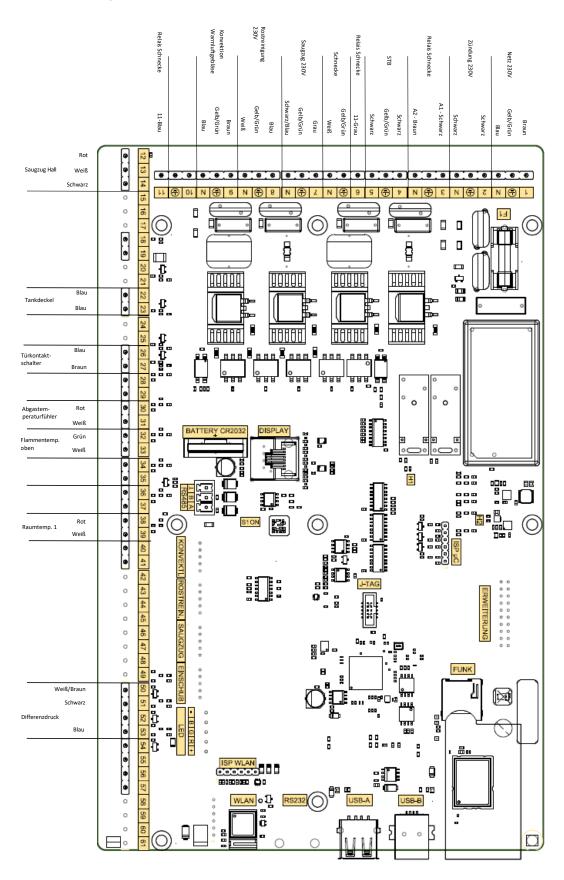


Pos.	Description	Piece	No. PR
	Replacement parts list		
41	Side wall right/black-glossy	1 piece	0545608005130
41	Side wall right/grey	1 piece	0545608015130
41	Side wall right/white	1 piece	0545608025130
42a	Front plate right/black-glossy	1 piece	0545608005150
42a	Front plate right/grey	1 piece	0545608015150
42a	Front plate right/white	1 piece	0545608025150

42b	Front plate right/black-glossy	1 piece	0545608005170
42b	Front plate right/grey	1 piece	0545608015170
42b	Front plate right/white	1 piece	0545608025170
42c	Front plate right/black-glossy	1 piece	0545608005160
42c	Front plate right/grey	1 piece	0545608015160
42c	Front plate right/white	1 piece	0545608025160
43	Front plate left/black-glossy	1 piece	0545608005110
43	Front plate left/grey	1 piece	0545608015110
43	Front plate left/white	1 piece	0545608025110
44	Side wall left/black-glossy	1 piece	0545608005121
44	Side wall left/grey	1 piece	0545608015121
44	Side wall left/white	1 piece	0545608025121
45	Cover plate left/black-glossy	1 piece	0545608005651
46	Cover plate right/black-glossy	1 piece	0545608005601
47	Back wall 1	1 piece	0545608005118
48	Back wall 2	1 piece	0545608005117
49	Back wall 3	1 piece	0545608005119

6. Circuit diagram

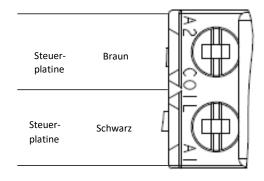
6.1. Circuit diagram IO 57.1

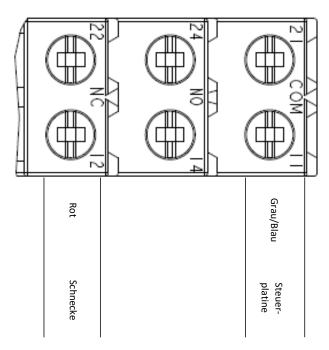


Description circuit diagram:

No.:	Description Cable harness
1	Mains plug / mains filter
2	Electric ignition
3	Screw conveyor motor — relay
4/5	OC
6	Screw conveyor motor — relay
7	Induced draught
8	Cleaning roller
9	Conv. fan
11	Screw conveyor motor — relay
12– 14	Flue gas fan rotation speed
22/23	Tank cover
26/27	Door contact switch
30/31	Flue gas temperature sensor
32/33	Flame temperature sensor
38/39	Room temperature sensor
50– 53	Differential pressure
F1	Fuse T 3,15 A ignition, induced draught fan, screw conveyor motor

6.2. Circuit diagram relay

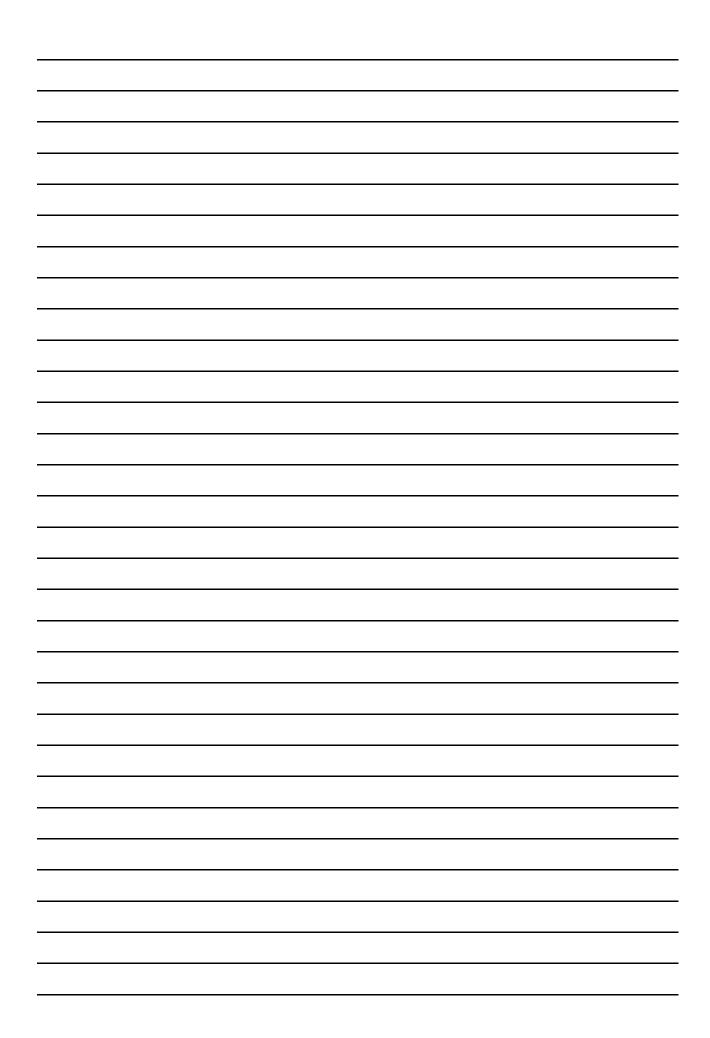




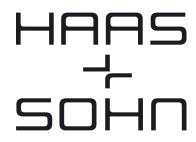
Description Circuit diagram:

No.:	Description Cable harness
A1/A2	Control board
11	Control board
12	Screw conveyor motor

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Pellet stove

Nameplate:

Installation and operating manual Pellet stove

Please read through these operating instructions carefully. You will be informed about the function and handling of this stove and you will also save fuel and conserve the environment by heating correctly. The attached **equipment sheet** is part of these operating instructions.

Notes in the text



Of utmost importance there are the notes entitled **WARNING**. The notes entitled **WARNING** advise you on serious danger of damage to the heating device or of an injury.



The note entitled **Notice** advises you on possible damage to your heating device.



The note itself calls your attention to the information important for the operation of your heating device in general.

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1. General information

- Please check the appliance for transport damage when unpacking it. In case of defects, please report these immediately to your stove dealer!
- National and European standards, local regulations and those under building law as well as the relevant state building regulations or fire regulations must be complied with when installing, connecting and putting the fireplace into operation.
- The pellet stove described in these instructions has been tested according to EN 14785 and according to the electrical standard, EN 60335-2-102.

2. General safety information

- The combustion of fuels releases heat energy, which leads to the surfaces of the heating appliance (E.G. doors, inspection window panes, side walls, front wall, flue tube) heating up significantly.
- The appliance starts independently in "Standby mode". Due to the build-up of heat on the window pane, care should be taken that no unsupervised persons, who do not know how to operate the pellet stove, are in the installation room.
- Air extraction equipment such as ventilation systems, extractor hoods, vented tumble dryers etc. or other fireplaces must not have a disruptive influence on the air supply for the stove.
- During operation, the combustion air opening provided must not be closed, throttled, constricted, covered or shut off.
- On stoves with an outdoor air connection, the opening must not be shut or closed during operation.
- This appliance can be used by children form 8 years and above and people with reduced physical, sensory
 or mental capabilities, if they have been given supervision and instruction concerning the use of the
 appliance in a safe way and understand the hazards involved. These persons can carry out cleaning and
 routine maintenance only when being supervised. Do not let children to use the appliance as a toy.
- The combustion chamber door must only be opened for cleaning and maintenance purposes when in "Off" mode. Otherwise this should always be kept closed.
- The pellet stove may only be connected to the mains after being properly connected to the fireplace.
- The protective grille in the pellet container must not be removed.
- The pellet stove must only be operated when the tank cap is closed.
- Never use liquid fuels to ignite the pellet stove or to revive existing embers.
- · Do not place any laundry items on the stove to dry!
- When operating your heating appliance, it is forbidden to work with highly combustible and explosive materials in the same or adjoining rooms!
- If the power cord is damaged, for safety reasons it may be replaced only by the manufacturer, service representative, or other suitably qualified person.

WARNING

The stove must not be set up to be operated jointly with the home's air conditioning and ventilation units.



Note

Exceptions:

RLU certified appliances can also be operated with extractor hoods, vented tumble dryers and air conditioning and ventilation units if the stove has also been connected to a balanced flue.



According to the new Electrical and Electronic Equipment Act [ElektroG], our stoves are considered as "large household appliances". According to the crossed-out wheelie-bin symbol on the products, the product should not be disposed of as municipal waste, but must be disposed of in accordance with the local laws of the specific country. This applies to products put into service after August 13, 2005 (in Germany after March 23, 2006).

3. Electrical connection

- The stove is operated with a mains voltage of 230V 50Hz.
- Only use the original mains cable supplied with the appliance.
- · The socket must be easily accessible.

4. Chimney



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WARNING

The chimney must be made of stainless steel or ceramics (glazed inside) in order to be suitable for wet operation, and cannot be soaked with soot. It is necessary due to the low temperature of the fumes your pellet stove has.



WARNING

Prior to the installation, it is always necessary to calculate the chimney according to the standard.



WARNING_

The minimum diameter of a chimney stack must be Ø 100 mm.



CAUTION __

Please observe the national regulations.

4.1. Weather conditions

For the safe operation of the fireplace, it must be ensured that the chimney is able to build up the necessary flue draft. Particular attention needs to be paid to this during the transition period (E.G. autumn and spring) or during poor weather conditions (E.G. strong wind, fog etc.).

4.2. Chimney flue draft at rated heat output of the stove

min. flue draft:	5 Pa	- if the minimum flue draft is not reached, then it is not possible to operate the fireplace properly and it will lead to increased contamination of the burner and inspection window.
max. flue draft:	15 Pa	- if the maximum permitted flue draft is exceeded, this leads to increased fuel consumption.

4.3. Connection to the chimney



CAUTION

For the connection to the chimney, <u>gas-tight</u> flue tubes should be used. Approved flex steel tubes are also suitable. Please observe the national regulations.

- The flue tube must be securely fitted on the flue gas spigot.
- The flue gas tube must not be installed with a drop to the chimney.
- It is also essential to ensure that the flue tube does not stick out into the open cross-section of the chimney, which would interfere with the flue gases rising and prevent the optimal cleaning of the chimney.
- The use of wall lagging is recommended for the insertion into the chimney.
- · Longer horizontal flue gas connections reduce the necessary flue draft.
- All openings leading into the same chimney, such as stove and chimney cleaning apertures, must be closed.

4.3.1. Multiple use

The stove is not approved for multiple use.

4.3.2. Connection to the existing chimney (example)

The plug for outlet of the condensate is of help in the cleaning and in the generation of the condensate.

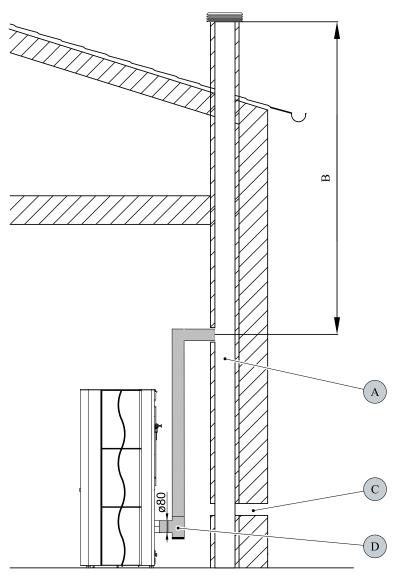


Figure 1: Connection to the chimney:

А	Chimney
В	Effective length of the chimney
С	Inlet of outside air
D	T-shaped block with plug for discharge of condensate

5. Installation



CAUTION

For comfortable maintenance and service are following distances recommended: at the sides – minimum 50 cm at the back – minimum 25 cm

5.1. Minimum gaps to flammable components



CAUTION _

When installing the stove, it is essential to observe the official fire protection regulations. Please observe the national regulations to this effect.



WARNING_

As the minimum distances from flammable or temperature-sensitive materials (E. G. furniture, wallpaper, wooden cladding) and from load-bearing walls, the specified gaps "at the back", "on the sides" and in the "direction of radiation forwards" must be maintained **according to the nameplate**.



WARNING_

Floor protection:

In case of flammable or temperature-sensitive floor coverings, the appliance must be placed on a non-flammable base (see drawing).

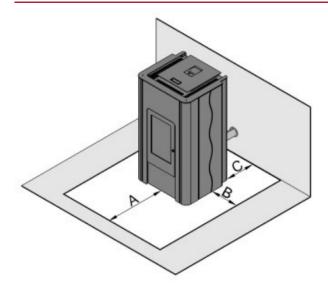


Figure 2: Recommendation for floor protection:

Α	30 cm – at the front
В	10 cm – at the sides
С	up to the back wall



WARNING

It is forbidden to put down or to install things which are not fireproof upon the stove or in its vicinity!

5.2. Combustion air supply



Note

It must be ensured that there is sufficient fresh air at the place of installation.

5.3. Operation of the stove depending on the air from the room:

The pellet stove has been tested as gas-tight according to the EN 14785 standard and can be operated with or without external air supply (the stove then consumes air from the room). In this case, during the simultaneous operation of the stove and the ventilation installation (e.g. controlled ventilation systems, hoods, etc.), the unit must be protected against a drop in room air pressure (e.g. by a differential pressure switch). Furthermore, a minimum of 20 m3/h of air must be supplied into the room.

Follow your local regulations and the advice of your chimney sweep.

5.3.1. Operation of the stove independent of the air from the room (RLU):

The required combustion air is supplied to the stove through sealed pipes from the outside or from an approved chimney system (e.g. LAS system), then the stove does not draw air from the room where it is installed. This allows the stove to be operated in low-energy or passive houses, or in houses equipped with mechanical ventilation systems.

5.4. Outside air connection



Note

We recommend using the outside air connection for the supply of combustion air in order not to use up the valuable indoor air when heating.

- To do this, connect the air intake elbow located on the back to a hose or a similar, suitable air duct or to a
 chimney system designed for this purpose. The diameter of the air duct must be at least the diameter of the
 outdoor air connection on the stove.
- The end of the air duct must be located outside or in a well ventilated area (basement).



WARNING

It is not recommended to feed the cold air into the room from outside via a direct duct, as this can lead to the build-up of condensation.

- In order to guarantee a sufficient supply of air, the duct should not be longer than approx. 3 m and not have too many bends.
- If the duct leads outside, it must end with a 90° bend facing down or a wind protection device (see Figure 3).

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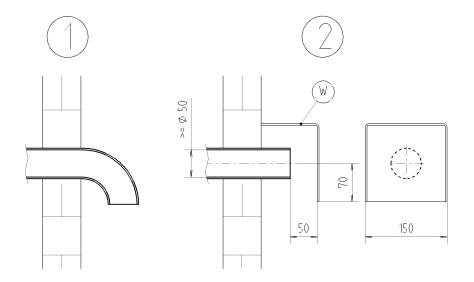


Figure 3: Wind protection of air supply duct



WARNING

For operation independent of indoor air with RLU certified appliances, the outside air connection must be connected.

For the dimensions of the air supply duct:

Air supply duct diameter	Maximum length	Max. number of 90° bends
100 mm	4 m	4



Note

If the dimensions are lower than specified, then it is not possible to operate the fireplace properly and it will lead to increased contamination of the burner and inspection window.

5.4.1. Outside air connection (RLU)

To operate the stove independently of the air from the room, the combustion air must be supplied from the outside or from an approved chimney system (e.g. LAS system).

5.5. Convection air distribution – Double Air

(only for stoves with a convection blower)

Depending on the specific variant of the stove, the hot air is either transported to the space in front of the stove or it is piped to another heated space.

Hot air can be transported by the blower either directly to the stove installation room or to other rooms.

The temperature of the convection air at the outlet of the stove reaches a maximum of 120 °C.

The convection air duct to a room other than the stove installation room should be as short as possible, max. 8 meters long with a max. of 4 bends with a min. diameter of 80 mm.



WARNING

The pipe material must be made of heat-resistant, non-combustible material – risk of fire!



Please keep in mind that the connection and ducting of the convection air must comply with national and European standard, as well as local, building and fire regulations. Installation must be performed by a competent person.

5.6. Room temperature sensor



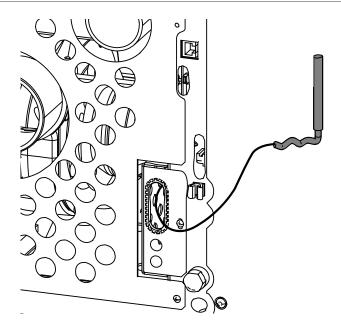
Note

A room temperature sensor is installed on the back of the stove. In the box there is about 0.8 m long cable, so the sensor can be placed farther away from the stove - this eliminates a possible error of temperature measurement coffed by the proximity of the flue.



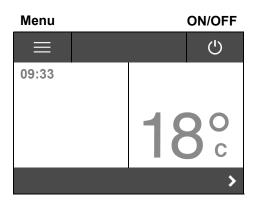
CAUTION

The sensor itself (metal part) must not touch the floor or wall - this could distort the temperature measurement!



6. Operator console functions

6.1. Symbols on the display



7. Operating the pellet stov

7.1. Suitable fuels

- · Pellets with 6mm diameter
- Identification: DINplus, ÖNorm M 7135, ENplus-A1

7.2. Unsuitable fuels

- The use of lower-quality or unauthorised fuel adversely affects the operation of your pellet stove and may lead to the lapse of the guarantee.
- Burning wood pellets of a poor quality leads to cleaning intervals becoming shorter and more fuel being consumed.



Note

Unauthorised fuels are, for example

- · wood chips
- straw
- maize
- · firewood
- etc.

7.3. Using for the first time

7.3.1. General:

Before using for the first time

- Remove any stickers.
- · Remove all accessories from the pellet tank and the combustion chamber.
- Check whether the combustion chamber cladding (see appliance sheet) is attached to its fastenings. This could have slipped out of its position as a result of the transportation or installation of the stove.
- · Check that the burner fits perfectly in its mounting.
- · Close the combustion chamber door.
- · Fill the storage container with pellets.
- · Plug in mains cable.



CAUTION_

To eliminate the risk of fire, only refill pellets to the tank when the stove is not heating.

When refilling pellets to the tank, make sure that the pellets do not fall outside the tank, e.g. into the holes in the stove lid.



Note

For type **HSP 4.0-F2**: when using for the first time, the Manual filling process must be started twice. (see point 9.1.12)

Due to the different expansion of the materials used, the stove may make sounds resembling **ticking or banging** when heated or cooled.

In principle, these sounds cannot be eliminated during operation. Due to the different expansion of the materials used and the sounds from the motor, fan, etc., sound effects with low noise levels may occur.

These sounds are due to factors that are out of control and therefore should not be considered a reason for claims.

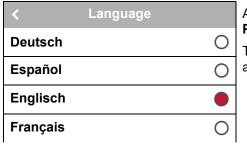
7.3.2. Operating console:



As soon as the mains plug is connected, the software version appears on the display for approx. 4 seconds

Touch display.

7.3.2.1. Language selection



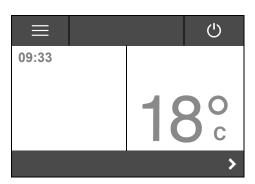
After that you can select your required language.

Procedure:

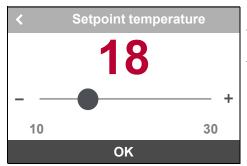
The required language is selected with the or buttons and confirmed with "OK".



7.3.2.2. Welcome page



7.3.2.3. Setting Setpoint temperature

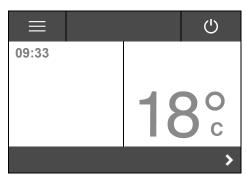


Procedure:

The "Setpoint temperature" is set with the **"Plus"** or **"Minus"** buttons.

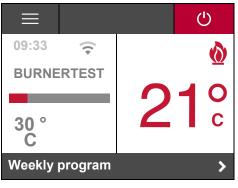
The setting is saved by pressing the **"OK"** button.

7.3.2.4. Starting the pellet stove - operating mode ON



Procedure:

On the standard screen, press the **"ON/OFF"** button to get the stove started.

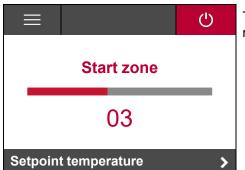


Before starting the start zone of the stove, a **"Burner test"** is performed automatically.



Note

During the **"Burner test"**, the level of contamination is measured using the pressure difference sensor. If the limit value is not exceeded, the start process is initiated.



The display now shows **"Start zone"**. The indicator shows the progress of the start.



Note

By pressing "ON/OFF" button again, the stove is switched back off. The button on the display turns grey.

The stove performs the ENTIRE start zone, however, until it reaches the necessary flame temperature and only then switches to the cooling Operating status and then OFF.



WARNING

During the first use, odours and smoke arising from paint applied to stove may build up for a short time. Please ensure that there is adequate ventilation in the installation room during this time and avoid inhaling directly!

The varnish is prone to scratches and damage before commissioning, but hardens after repeated heating.



Note

If the start zone could not be successfully completed i. e. no flame generation or the required temperature could not be reached at the flue gas thermosensor, then a safety shutdown is initiated and an error message generated ("Error 2 – Date and time"). Before starting again, empty the burner and replace it.

8. Additional operator console functions

8.1. Backlighting

The backlighting of the display is switched off 5 minutes after the operator console was last operated and switches to energy saving mode.

The backlighting is switched on by pressing on button. The function buttons are only active once the backlighting has been activated. The backlighting is also activated by an error message being triggered.

8.2. Energy saving mode - Actual room temperature display



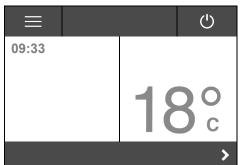
The display energy saving mode is activated after approx. 5 minutes. The display shows Actual room temperature.



Note

Pressing any button makes the welcome page appear again on the display after approx. 3 seconds.

8.3. Button lock (child safety device)



Procedure:

Activation:

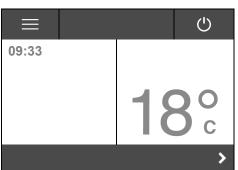
Hold the **Menu** button down for approx. 10 seconds until "Button block activated" appears on the display.

Deactivation:

Hold the **Menu** button down for approx. 10 seconds until "Button block activated" no longer appears on the display.

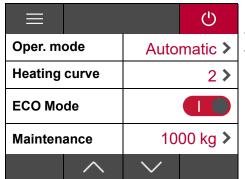
9. Functions in the main menu

9.1. Main menu - Select functions



Prerequisite: Welcome page is displayed.

The **Main menu** page appears by pressing the button. This menu is shown as a scroll down menu.



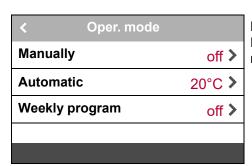
Procedure:

The functions can be selected with the or buttons. The function is chosen by pressing the function itself.

The following functions are found in the main menu:

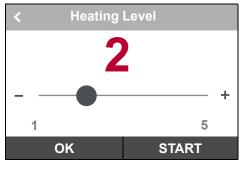
- · Oper. mode
- · Heating curve
- ECO Mode
- Maintenance
- · Power Stage Blower
- · Date/Time
- Display
- Network
- · Error Log
- Manual filling (for HSP 4.0-F2 only)
- · Info Software
- Language

9.1.1. Manual operating mode



Procedure:

Press the **"Manually"** function to activate the manual operating mode.

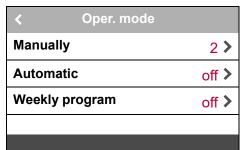


Procedure:

Press and move the scroll bar to select the set heating level. Confirm the selection by pressing the **"OK"** button. Press the **"START"** button to start the stove in manual operating mode

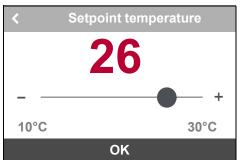
It is possible to choose from five heating levels with stage 1 having the lowest heat output.

9.1.2. Automatic operating mode



Procedure:

Press the **"Automatic"** function to activate the automatic operating mode.

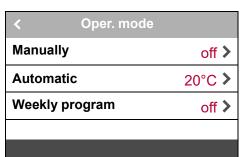


Procedure:

Press and move the scroll bar to select the desired value. Confirm the selection by pressing the **"OK"** button.

In automatic operating mode, the Setpoint temperature can be set from 10 $^{\circ}$ C to 30 $^{\circ}$ C.

9.1.3. Operating mode Weekly program



Procedure

Press the **"Weekly program"** function to activate this operating mode.



Procedure:

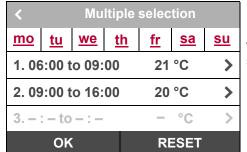
After selecting the day of the week, up to three heating zones can be set and their start, end and set temperature defined.

The weekly program function starts by pressing the **"START"** button.



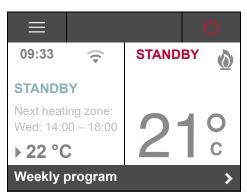
Procedure:

After entering the time interval and temperature, confirm with the "OK" button. Press the "RESET" button to delete the entered data.



Procedure:

Use double-click on any day of the week to select all days of the week. This allows all days of the week to be programmed with the same values. Confirm the selection by pressing the **"OK"** button. Press the **"RESET"** button to cancel the selection.



Note

Early start:: If the stove is on standby between heating zones, it is possible to start the stove early by pressing the **"ON/OFF"** button. The next heating zone is selected directly for this.

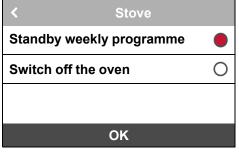


Early start:: Select "Stove on" to activate an early start.



Note

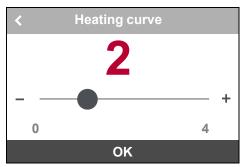
Early stop: It is also possible to end the current heating zone by pressing the **"ON/OFF"** button.



Early stop: Select "Standby weekly program" to activate an early stop. The next heating zone will start as per preset weekly program.

GB

9.1.4. Heating curve



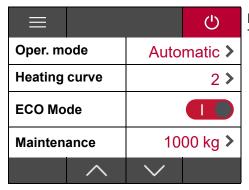
Room size 20 m² - Wert 1
 Room size 25 m² - Wert 2
 Room size 30 m² - Wert 3
 Room bigger than 30 m² - Wert 4

Procedure:

Press and move the scroll bar to select the setpoint value and then press the **"OK"** button to conform it.

Setting range of the heating curve from 1 to 4. Factory setting: 2 The value to be set is based on the size of the room being heated.

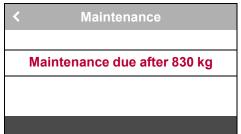
9.1.5. ECO Mode



Procedure:

To activate ECO Mode, resize the button.

9.1.6. Maintenance



The service interval can only be reset after burning more than 1 kg of pellets

After that, the maintenance interval.

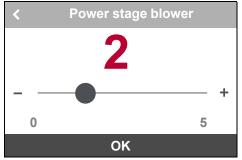


Procedure:

By pressing the **"RESET"** button, you will be asked whether you really want to reset the service interval.

By pressing the **"OK"** button, the service interval again will be reset to 1000 kg and an error code W0042 will be logged into thee Error Log.

9.1.7. Power stage blower



Procedure:

Press and move the scroll bar to set the desired value. The higher the selected value, the higher the speed of the blower. Confirm the selection by pressing the **"OK"** button.

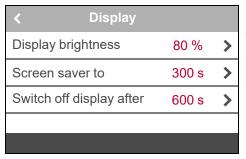
9.1.8. Date / Time

✓ Date / Time			
Day	Do 03	-	+
Month	09	1	+
Year	2020	1	+
Time	07:29	1	+
ок			

Procedure:

Use the **"Plus"** and **"Minus"** buttons to set the date and time. Confirm the selection by pressing the **"OK"** button.

9.1.9. Display

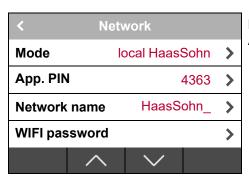


In the **"Display"** menu you can set the brightness, screen saver (displays the temperature) or automatic display off.

Procedure:

Press any line to make settings.

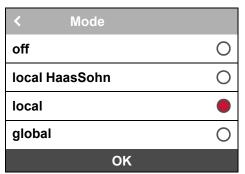
9.1.10. Network



Procedure:

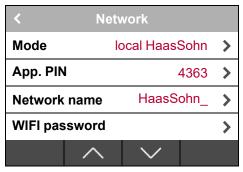
All WIFI settings are available in the "Network" menu.

9.1.10.1. Mode



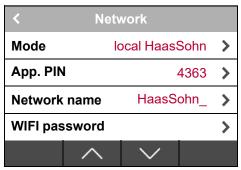
Network modes are available in the "Mode" menu.

9.1.10.2. App. PIN



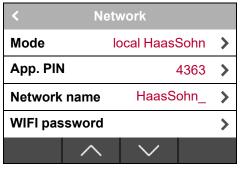
It is possible to generate a 4-digit pin in the "App. PIN" line.

9.1.10.3. Network name



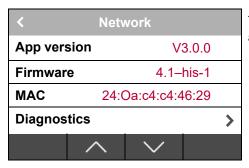
The name of the local WLAN network is displayed in the **"Network name"** line.

9.1.10.4. WIFI password



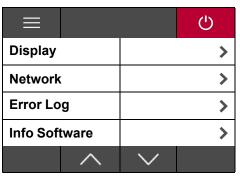
Enter the password for your home network in the "WIFI password" line. In the "local HaasSohn" mode the password will be entered here.

9.1.10.5. App. Version



The "APP version" line shows the current version of the application.

9.1.11. Error Log



Procedure:

The "Error log" is available by pressing the relevant line.

Use the or buttons to scroll through the log. In the error log there are shown the latest 64 error messages with dates and times.

9.1.12. Manual filling (for HSP 4.0-F2 only)



Procedure:

In the main menu, select the **"Manual filling"** function and press the **"START"** button.

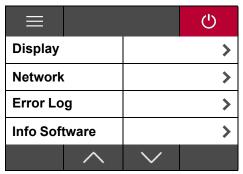
The fuel conveyor is set in motion for 4 minutes and transports the pellets to the furnace. After filling is completed, you return to the main menu by pressing the back button at the top left.



Note

- · When using for the first time, the Manual filling process must be started twice again.
- If the chute is completely emptied, it is necessary to start the Manual filling process once after refilling the pellets.

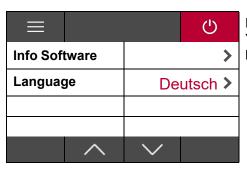
9.1.13. Info Software



Procedure:

Press the **"Info software"** line to display the current stove info software.

9.1.14. Language



Procedure:

You can change the menu language by pressing the **"Language"** line. Confirm the selection by pressing the **"OK"** button.

10. Mobile application - general safety instructions

The application may only be operated by persons who have become familiar with the safety regulations for H + S stoves.

10.1. Installation of mobile application

You can find the "Haas + Sohn" app on Apple mobile devices in the App Store or on Android mobile devices in the Play Store.



Mobile devices with the following operating system are supported:

· Apple: iOS 11.0 and later

· Android: Android 6.0 and later



Note

Due to the amount of transmitted data, it is necessary to have a sufficient data tariff.



Note

When connecting for the first time, the smart device with the application and the stove must be connected to the same wifi network (not via the Internet). It is necessary for safety reasons.

10.2. Range of functions

- One stove can be operated using up to 5 mobile devices.
- One mobile application enables to operate up to 5 stoves.

10.3. Function description - Network modes

Modes:

local HaasSohn	local	global	
If your own WLAN (Wifi) network is not available, this setting can be used to set up a new Haas + Sohn network (Hotspot, without internet connection - only for direct control of pellet stoves).	The stove can be connected to an existing home WLAN (Wifi). The internet connection has been deactivated.	The stove must be connected to an existing home WLAN (Wifi). The internet connection is activated automatically.	
۵ پ			
The remote control works throughout the home.	The remote control works throughout the home.	The remote control works globally.	
Prerequisite: None	Prerequisite: Existing WLAN (Wifi)	Prerequisite: Existing WLAN (Wifi)	

11. Oper. modes

11.1. Burner test before start zone

The start zone begins if:

- the current room temperature falls below the set target temperature by 1 °C
- the stove is cooled down to a temperature below 70 °C

A burner test is performed before each start zone. After a successful burner test the start zone is initiated.

11.2. Start zone 1-30 (start zone)

The whole "start zone" can go through up to 30 zones. It finishes after reaching a precisely defined temperature at the "flame temperature sensor" and the control system puts the stove into "Heating mode".

The duration of the "start zone" can therefore vary.

If, during the start zone, no flame generation can be achieved or the required temperature at the "flame temperature sensor" cannot be reached, a shut down process is initiated.

11.3. Heating mode

After the positive conclusion of the "start zone", the stove automatically switches to "Heating mode".

Manual control: The heat output of the stove is regulated in 5 preset levels. The higher the level (1-5), the higher the heat output.

Automatic control: The heat output is controlled according to the difference between the set and Actual room temperature.

11.4. Burner test (when heating)

During the **"Heating mode"** operating state, the burner test is started in cycles depending on the selected heat output level. The burner test takes approx. 3 min.

11.5. Cooling down

If the set Setpoint temperature is reached or the "ON/OFF" button is pressed, then the operating status switches to "cooling down". The cooling down phase is restricted by timing control (duration about 15 minutes). After the end of the "Cooling down" operating status, the appliance switches to "standby" operating status or "OFF".

11.6. ECO-Mode

If the ECO-Mode mode is activated, the stove will not turn off when the "Setpoint temperature" is reached. The stove continues to burn with a "smaller flame". If the "Setpoint temperature" is exceeded by more than $3\,^{\circ}$ C, then:

- the stove enters the "Cooling down" operating mode
- if the "Actual room temperature" exceeds 30 °C in the ECO-Mode operating mode, the stove enters the "Cooling down" operating mode.

The ECO-Mode remains active in both cases.

GB

11.7. Standby

The stove is in waiting condition. Before it can be switched over from the operating setting "standby" to the operating setting "Start zones 1 - 20", two conditions for the start are to be fulfilled:

- The "Actual room temperature" must drop under the "Setpoint temperature" by 1 °C at least
- The temperature of the combustion products measured by temperature sensor must be lower than 70 °C

11.8. Shut down

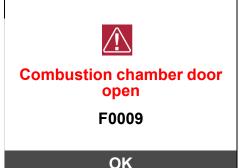
If a fault occurs, then a shut down is initiated. The components are switched on or off as follows:

• Induced draught fan - ON and Screw conveyor - OFF and Ignition - OFF

11.9. Cooling

The end of the shut down process depends on time and temperature.

11.10. Error display - Fault



The stove can no longer be automatically started up. The operator can see the fault on the display. Once the fault has been properly corrected and the error message on the operator console has been cleared, the stove can be started up again.

Procedure:

The error is cleared by pressing the **"OK"** button. Welcome page is displayed.



Note

Otherwise please read the information under Faults, causes, correction.

11.11. OFF

12. Overheating protection

A safety temperature limiter (STL) automatically switches the stove off if it overheats. The error F001 is shown on the console display under operating status. In this case, the appliance must be inspected by a qualified technician!

13. Power cut

The control unit has a backup battery so that data is retained during a power cut.

A distinction is made between a short power cut and a long power cut. Short power cut – lasts for less than about 30 seconds:

• Once the electricity supply has been restored, the stove continues its operation.

Long power cut – lasts for more than about 30 seconds:

• Once the electricity supply is restored, the stove switches to the Shut down operating status and subsequently to "OFF".

14. Cleaning and maintenance work (see Appliance sheet 3+4.)

15. Faults, causes, correction

You can correct simple operating faults yourself with the following guide. For further information please consult your specialist dealer.



WARNING

If a fault occurs, you will be shown this on the display.

In the event of a fault, do not pull the mains plug out straight away, so that the internal safety functions can continue to operate fully. Only in this way can the flue gases present be extracted via the chimney using the fan. Only pull out the mains plug before starting work on the cold appliance.

15.1. Fault – error code Fxxx

Code	Cause:	Correction:
F0001	A. STL triggered due to overheating B. Fuse (F1) in the central unit is defective C. Ignition short circuit	A. If STB has triggered - contact service department B. Fuse F1(3.15 A) defective - contact service department C. Ignition defective - contact service department
F0002	A. Burner dirty B. Pellet tank empty C. Ignition defective D. Burner not lying flush E. Flame temperature sensor defective F. Downpipe / screw conveyor blocked G. Screw motor defective	A. Clean burner B. Clean burner - fill pellet tank C. Ignition defective - contact service department D. Clean burner - position burner correctly E. Flame temperature sensor defective - contact service department F. Clean the intake on the screw conveyor housing with a vacuum cleaner - clean burner G. Screw motor defective - contact service department
F0003	A. Heat exchanger / smoke flues dirty B. Heating curve set too low C. Room temperature sensor is lying on the floor or wall	A. Cleaning the smoke flues - clean burner B. Clean burner - Adjust heating curve as described C. Clean burner - suspend room temperature sensor freely
F0005	A. Burner dirty B. Pellet tank empty C. Downpipe / screw conveyor blocked D. Room too airtight – required combustion air cannot flow into the room E. Flue gas temperature sensor defective	A. Clean burner B. Clean burner - fill pellet tank C. Clean the intake on the screw conveyor housing with a vacuum cleaner. – Clean burner

	F. Screw motor defective G. Pellet fuel has too low a calorific value	D. Clean burner - Ensure adequate combustion air E. Flue gas temperature sensor defective - contact service department F. Screw motor defective - contact service department G. Clean burner - switch to high quality pellet type
F0006	A. Combustion chamber door open during operation B. Damper in front of the door contact switch not in the right position C. Cable broken in the electric wiring to the door contact switch D. The connector has come out on the door contact switch or on the central unit	A. Clean burner - close door B. Clean burner - Adjust damper in front of the door contact switch C. Cable broken on door contact switch - contact service department D. Contact service department
F0007	A. Flue gas temperature sensor defective or not connected	A. Contact service department
F0008	A. Flue gas temperature sensor defective	A. Contact service department
F0009	A. Note: Combustion chamber door open during "Off or standby"	A. No correction necessary - Close door - Error is automatically cleared
F0011	A. Room temperature sensor defective or not connected	A. Contact service department
F0012	A. Room temperature sensor defective	A. Contact service department
F0015	A. Induced draught fan defective B. Power supply to the fan motor interrupted	A. Contact service department B. Check cable - contact service department
F0018	A. Power cut	A. Clean burner - Clear error 018
F0019	A. Burner dirty - (when heating) B. Leakage C. Flue draught too low	A. Clean burner tray B. Check doors, ashtray doors, seals C. Check the chimney
F0020	A. Burner dirty (at burner test when heating) B. Leakage C. Flue draught too low	A. Clean burner tray B. Check doors, ashtray doors, seals C. Check the chimney
F0021	A. Burner dirty B. Pellet tank empty C. Downpipe / screw conveyor blocked D. Room too airtight – required combustion air cannot flow into the room E. Flue gas temperature sensor defective F. Screw motor defective G. Pellet fuel has too low a calorific value	A. Clean burner B. Clean burner - fill pellet tank C. Clean the intake on the screw conveyor housing with a vacuum cleaner. – Clean burner D. Clean burner - Ensure adequate combustion air E. Flue gas temperature sensor defective - contact service department F. Screw motor defective - contact service department G. Clean burner - switch to high quality pellet type
F0022	A. Flue draught too low B. Flue draught too high C. Burner dirty D. Flue tube pipeline too long (horizontal) E. Flue gas temperature sensor defective	A. Measure flue draught - contact service department B. Measure flue draught - contact service department C. Clean burner

		D. Change flue tube pipeline- contact service department E. Flue gas temperature sensor defective - contact service engineer
F0023	A. Flame temperature sensor defective or not connected	A. Contact service department
F0025	A. Burner dirty (at burner test during start zone) B. Leakage C. Flue draught too low	A. Clean burner tray B. Check doors, ashtray doors, seals C. Check the chimney
F0026	A. Pellet tank empty B. Burner not lying flush C. Burner dirty D. Pellet fuel has too low a calorific value E. Downpipe / screw conveyor blocked F. Room too airtight – required combustion air cannot flow into the room G. Flame temperature sensor defective H. Screw motor defective	A. Fill pellet tank B. Position burner correctly C. Check burner/ clean burner D. Switch to high quality pellet type E. Clean the intake on the screw conveyor housing with a vacuum cleaner. F. Ensure adequate combustion air - Connect stove with outside air G. Flame temperature sensor defective - contact service department H. Screw motor defective - contact service department
F0028	A. Burner / combustion chamber dirty B. Flame temperature sensor at bottom defective	A. Clean burner B. Contact service department
F0033	A. No WLAN connection B. WLAN code is incorrect C. No IP address received	A. Check WLAN reception B. Check WLAN code C. Check DHCP settings on the router
F0034	A. No internet connection available	A. Check internet connection
F0040	A. Combustion chamber not cleaned in specified time interval	A. Clean burner and combustion chamber — the combustion chamber door must be opened in "OFF" operating status. The burner and combustion chamber are carefully cleaned using an ash vacuum cleaner. The combustion chamber door must be opened for longer than 60 seconds here so that the error message is automatically cleared.
F0041	A. Maintenance interval exceeded	A. Clean the flues
F0043	A. Flame temperature sensor circuit open	A. Contact service department
F0050	A. The spare battery empty	A. Replace the battery of the control system (CR 2032)
F0053	A. Open tank door	A. Close pellet tank cap
F0060	A. The parameters of factory settings have been incorrectly loaded	A. Contact service department
F1000 / W1000	A. Restart of the hardware	A. The device is without to power supply - error message in the Record of defects

16. General information / faults

Fault:	Cause:	Correction:	
Pellet stove does not start	The set Setpoint temperature is lower than the current Actual room temperature The temperature of the fumes is too high An error has An error has occurred there is no allocated time zone in the week program	Increase Setpoint temperature Let the instrument cool down See error correction, Section 15.1. Adjust week programming, Section 10.1.1.	
No display	Loose or defective connection cable between operator console and control unit Contrast shifted	Contact service department Reset contrast	
Noise in the (induced) draught fan	Ashes in the body of the draught fan	Remove the ashes using an ash exhauster	
Ticking or banging	During heating or cooling due to different expansion of the used materials Noise during burner test		
Keep in mind that these sounds are due to factors that cannot be eliminated.			

Due to the different expansion of the materials used, the stove may make sounds resembling **ticking or banging** when heated or cooled.

In principle, these sounds cannot be eliminated during operation. Due to the different expansion of the materials used and the sounds from the motor, fan, etc., sound effects with low noise levels may occur.

These sounds are due to factors that are out of control and therefore should not be considered a reason for claims.

17. Warranty

HAAS + SOHN gives the purchaser a warranty within the context of the statutory regulations. The two-year guarantee period commences on the date of the Actual handover.



Note

The receipt is to be presented as evidence.

If a defect occurs in your appliance within the warranty period, HAAS + SOHN will correct (repair) this defect in the shortest possible time or optionally replace the defective item. Cancellation of the contract /a reduction in price is excluded in so far as this does not conflict with the statutory regulations. Only replacement parts that are expressly authorised or offered by the manufacturer may be used.

Replacement parts that are covered by the warranty and which the customer can replace himself are provided free of charge during the warranty period. Replacement parts are provided without service intervention. However, if the customer requires assembly of replacement parts by a service technician, this service is charged.

Changes to the item purchased that are connected with normal use, invalidate a warranty. Maintenance or cleaning not performed or performed inadequately, a flue draft that is incorrectly set to the appliance or is insufficient or too high, improper commissioning, negligence and changes to the appliance, also invalidate a warranty.



If any constructional change is made to the stove or if it is not used for the intended purpose, any claim under warranty lapses.

18. Replacement part orders / Service enquiries / Complaints

For ordering replacement parts or making enquiries about repairs and service as well as in the event of any complaints, please get in touch <u>directly with your Haas+Sohn sales partner</u> where you purchased the appliance.



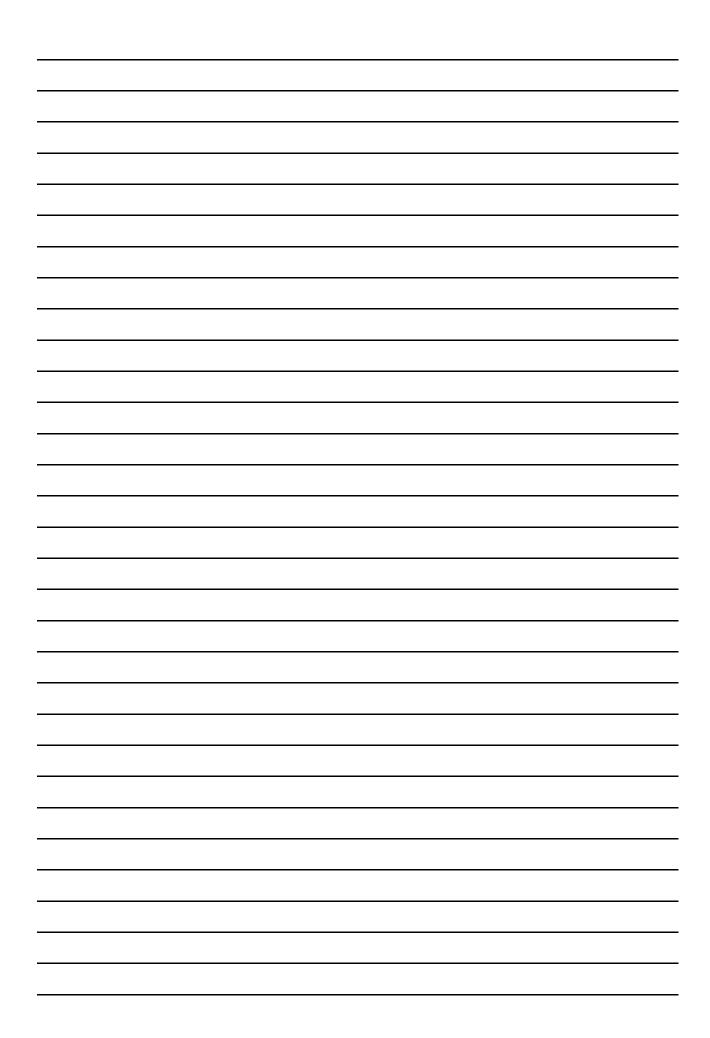
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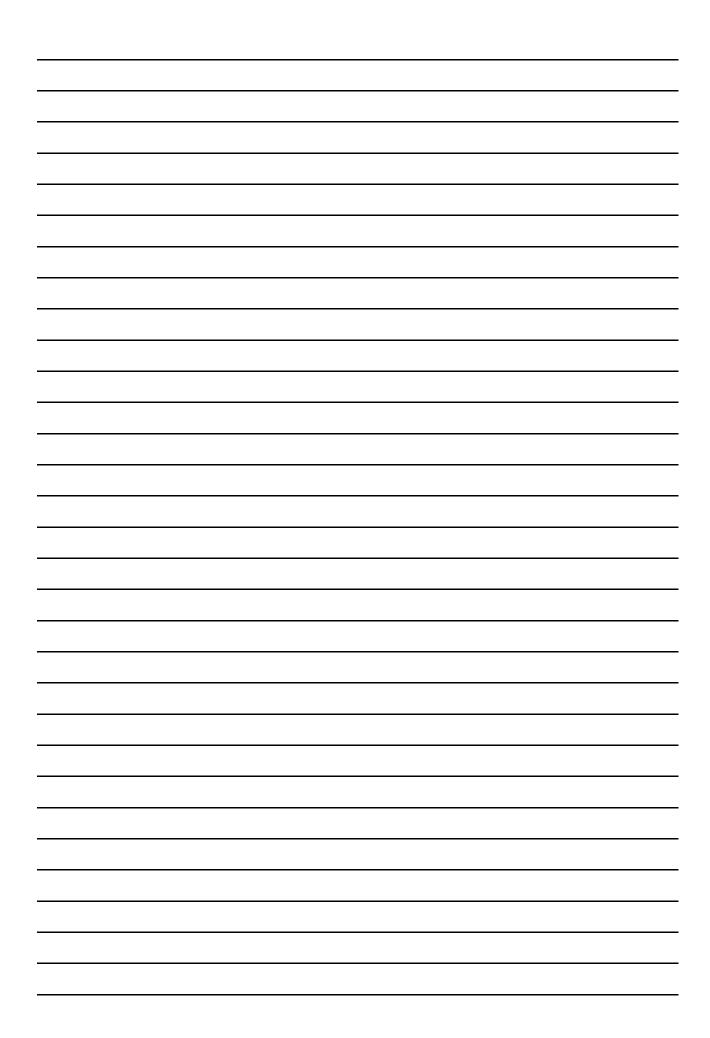
So that your enquiry can be dealt with quickly, the following details from the nameplate are essential:

- Exact type designation (version of the model)
- · Manufacturer's number

The nameplate is located on the back of the stove and on the front page of the operating instructions. Please also take note of the technical drawings and tables on the appliance sheet, where you will find the right designation of the replacement part required.

Subject to dimensional and design changes, technical and optical changes, typing and printing errors.





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All documents such as operating instructions found under: www.haassohn.com	s, appliance sneet, te	est reports etc. and co	ntact details can also be
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