INSTRUCTIONS FOR CONNECTING, OPERATION, AND MAINTENANCE OF THE STOVE
Heating devices (in this manual they are called “stoves”) by Alfa Plam (in this manual titled Alfa Plam) are assembled and tested in accordance with the safety and applicable measures, and regulations of the European Community.

This manual is intended for users of the stoves, contractors who install the stoves, operators and workers for stove maintenance that is shown on the front page of the manual.

If you do not understand something in this manual, please contact our professional services or an authorized service center. In doing so, always specify the number of the chapter where there is some ambiguity.

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WARNING:

IMPORTANT: Connecting the appliance to the electrical installation must be carried out by qualified and authorized persons in accordance with applicable regulations.

This appliance is not intended for use by persons (including children) with reduced physical, motor, and mental capabilities, or to persons with a limited knowledge and experience in the absence of the person responsible for their safety or care.

Children cannot be allowed to play with this appliance.

DOUBLE COMBUSTION SYSTEM

The flame obtained by proper combustion of the pellet in the stove emits the same amount of carbon dioxide (CO₂), which would be freed as a result of the natural decay of wood.

The amount of carbon dioxide (CO₂) obtained through combustion or decomposition of plant mass corresponds to the amount of carbon dioxide (CO₂) which the plant mass is able to obtain from the environment and to transform it into air and carbon of the plants during its entire lifetime.

The use of non-renewable fossil fuels (coal, oil, gas), contrary to what happens with the wood, releases into the atmosphere huge amounts of carbon dioxide (CO₂), that have been gathering up for millions of years, creating a greenhouse effect. The use of wood as fuel is therefore perfectly balanced with the environment, because the wood as a renewable fuel is in ecological harmony with nature.

Using the principle of clean combustion, we fully achieve these objectives, and so Alfa Plam has directed its development and all activities towards fulfilling this goal.

What do we consider clean combustion and how does it work?

Controlling and adjusting the primary air and injecting the secondary air causes secondary combustion, or the so-called post-combustion, which provides a secondary flame that is by its nature lighter and stronger than the primary flame. The addition of a new oxygen (inserted through the air) allows further combustion of gases that are not completely burned. This significantly increases the thermal efficiency and reduces harmful emissions of carbon monoxide (CO), because the incomplete combustion is minimized. These are the basic characteristics of these stoves and other products of Alfa Plam.
# 0.0. TECHNICAL CHARACTERISTICS OF THE STOVE

1. Dimensions of the stove:
   - width: 574 mm
   - depth: 568 mm
   - height: 1237 mm
2. Flue terminal diameter: 80 mm
3. Diameter of exterior air intake on the wall: 100 mm
4. The height from the floor to the axis of the flue terminal: 350 mm
5. Maximum stove power (radiation of water included): 16.5 kW
6. Radiation stove power at maximum power: 2 kW
7. The power of a water heater at maximum power: 14.5 kW
8. The maximum consumption: 3.7 kg/h
9. Degree of efficiency at maximum power: 94%
10. Minimum stove power (radiation of water included): 6.5 kW
11. Radiation stove power at minimum power: 1.5 kW
12. The power of a water heater at minimum power: 5 kW
13. The minimum consumption: 1.3 kg/h
14. Degree of efficiency at minimal power: 96%
15. Minimum draft: 13 Pa
16. Optimal draft: 13 Pa
17. Heating volume: 124 - 275 m³
18. The capacity of the funnel-like fuel reservoir: 45 kg
19. The maximum working time with a full reservoir: 35 h
20. The minimal working time with a full reservoir: 12.5 h
21. Maximum output power: 450 W
22. Voltage and frequency: 230V/50Hz
23. The weight of the stove:
   - net: 193 kg
   - gross: 222 kg

## 1.0 THE TASK PURPOSE OF THIS MANUAL

The purpose of the instructions is to enable the user to take all the necessary measures in order to ensure safe and proper use of the stove.

## 1.1 UPDATING THE INSTRUCTIONS

This manual reflects a work of art at the moment when the stove was placed on the market. Therefore, Alfa Plam does not take into account the stoves that are already on the market with the appropriate technical documentation and considers them as defective or inadequate after any kind of modification, adaptation or application of new technologies to newly produced machines.

The contents of this manual should be carefully read and studied. It is necessary to strictly follow all the instructions given in this manual. All information contained in this manual is necessary for proper connection, use, and maintenance of your stove.

Therefore, this manual has to be carefully stored for the necessary instructions in the event of any problems or concerns.

*If the stove is given or sold to another person, the new owner must also be given this instructions manual.*

If you have lost your manual, the manufacturer can provide you with a new one.
2.0 RESPONSIBILITIES OF THE MANUFACTURER

In issuing these instructions, Alfa Plam accepts no civil or legal liability, direct or indirect, due to:
- Accidents caused by not respecting the standards and specifications given in this manual,
- Accidents caused by improper handling or use of the stove by the user,
- Accidents resulting from modifications and repairs, which were not approved by Alfa Plam,
- Poor maintenance,
- Unforeseen events,
- Accidents resulting from the use of spare parts that were not original or not intended for these models of stoves.

Responsibility for connecting is fully assumed by the installer - contractor.

2.1 GENERAL CHARACTERISTICS OF USERS

The user of the appliance must have the following basic characteristics:
- be an adult and responsible person,
- have a specific technical knowledge that is needed for routine maintenance of electrical and mechanical components of the stove.

CHILDREN ARE NOT ALLOWED NEAR THE STOVE OR TO PLAY WITH IT WHILE IT IS ON.

2.2 TRANSPORTING AND USING THE STOVE - HANDLING

When using the stove, it is necessary to be careful and not allow the stove to tilt forward. This is because the brunt of the stove is forward.

During transportation of the stove, which has to be completely safe, make sure that the forklift has the load that is greater than the weight of the stove that it is supposed to lift. Avoid twitching and jerking movements.

ALL PACKAGING SHOULD BE REMOVED SO THAT IT IS OUT OF REACH OF CHILDREN, BECAUSE THE MATERIALS THAT ARE INSIDE CAN LEAD TO CHILDREN SUFFOCATING. THESE INCLUDE PLASTIC BAGS, FILM, POLYSTYRENE, ETC.

2.3 RESPONSIBILITIES OF THE INSTALLER

Installer's responsibility is to do all the tests of the flue pipeline, air supply, and all the things that are necessary for connecting (installing) your stove.

Installer's responsibility is to adjust the stove to local regulations which apply where the stove is connected (installed).

The use of the stove must be in accordance with the instructions for use and maintenance, as well as with all the security standards that are given by the local regulations that apply where the stove is connected (installed).

The installer has to check:
- the type of stove to be connected,
- whether the room corresponds to the stove where the stove will be installed, which is expressed as the minimum size required for installation, set forth by the manufacturer of the stove,
- heat generator
- manufacturer's instructions regarding the requirements of smoke removal systems (ducts and pipes for smoke exhaust),
- inner cross section of the chimney, the material out of which the chimney is made, uniform cross section,
- that there are no disturbances and obstacles in the chimney,
- height and vertical extension of the chimney,
- altitude at the place of connecting the stove,
- the existence and suitability of the protective cover for the chimney that is resistant to the wind,
- the possibility of securing the external air supply and the size of the necessary openings,
- simultaneous use of stove that needs to be connected with other equipment that already exists at that place.

If the results of all checks are positive, then we can proceed with connecting the stove. Make sure you follow the instructions of the manufacturer of the stove, as well as the standards for fire protection and the safety standards provided.

When you are finished connecting, the stove has to be turned on in trial mode for at least 30 minutes to test if the stove is working properly.

When the installation and important details are completed, the installer must provide the client the following:

- Instructions for use and maintenance issued by the manufacturer of the stove (if such instructions are not provided with the stove),
- The documentation necessary to comply with the existing standards.

### 3.0 INSTALLATION – STOVE INSTALLATION

**Responsibility for the work carried out at the place of connection is entirely on the user.**

Before one turns the stove on, the installer must meet all legal standards of safety, as well as the following requirements:

- to check that setting up the stove complies with local, national, and European regulations,
- that the location of setting up the stove meets the requirements set forth in this manual,
- to set up the flue pipes,
- that air intake matches the type of the installed stove,
- that the electrical connections are not set up using temporary and/or not insulated electrical cables,
- to evaluate the effectiveness of grounding electrical systems,
- to always use personal protective equipment and all means of protection that are prescribed by local regulations,
- to always provide sufficient service space required for any maintenance and repair of stoves

### 3.1 INSTALLING THE STOVE

We recommend you to unpack the stove only when the stove is set up in the position where it will be connected.

The stove is on the plastic pins that have M10 bolts (4 items), that are threaded into the stove base. At the screws there are M10mm threaded nuts to the plastic parts. The legs are wound up all the way to the base of the stove. After unpacking the stove, when you put it in a place where it will be located, it is necessary to unscrew all the legs, so that a total height from the floor to the base of the stove is about 25mm. When you are done with nivelation of the stove that needs to stand horizontally, tighten the nuts with a 17 wrench, which needs to approach the base of the furnace, and at the same time hand-holding the plastic part of the legs, tighten the nut. The height of about 25mm from the floor to the base is needed for better circulation of air and cooling the stove. In this way you protect the stove from overheating and you extend its life.

If the surrounding walls and/or floors are made of materials that are **not resistant to heat**, then one should use adequate protection using the insulating material that does not burn.

Always make sure that you leave a safe distance (about 35/40 cm) between the stove and furniture, home appliances, etc. To protect the floor if it is made of combustible materials, we suggest you put a
metal plate under the stove on the floor with the thickness of 3-4 mm that will stretch 30 cm in front of the stove.

**The stove must be at least 25 cm away from the surrounding walls.** Always leave at least 15 cm between the rear side of the stove and the wall to allow for proper air circulation, or for the air to flow properly in that area.

If the stove is installed in a kitchen with a trellis for drawing out air or if it is placed in the room with appliances that use solid fuel (such as a wood burning stove), always make sure that the amount of inlet air in the room is sufficient to ensure safe operation of the stove.

If a smoke channel goes through the ceiling, it should be properly thermally insulated using the protection out of insulating materials that does not burn. When the stove is set up into place, it should be levelled using pins.

**DANGER !**

The exhaust gas Armour **must not be** connected to:

- the smoke pipe used by another heat generator (boilers, furnaces, fireplaces, stoves, etc.),
- the air drawing system (grilles, ventilation openings, etc), even if the system is inserted into the drain pipe.

**DANGER !**

It is forbidden to install shut-off valves for the flow (draft) of air (flap valves that can prevent airflow or disable drafts).

**ATTENTION**

If the ejection path of smoke creates such a bad draft, of a bad flow of air (many curves, improper completion of the ejection of smoke, constriction, etc.) discharge of smoke can be bad, or in a situation like this smoke discharging is not as good as it could be.

The smoke ejection system from the stove operates under negative pressure in the stove chamber and with mild pressure from the smoke drain pipe. It is very important that the smoke extraction system is hermetically closed (sealed). This requires the use of a smooth tube on the inside. First of all you must carefully study the plan and structure of the room when the smoke extraction pipe is set up through the walls and roof, so that the installation of pipes is performed properly in accordance with the standards of fire protection.

You should first ensure that the room where the stove is located has enough air for combustion. It is advisable to periodically perform checks so as to ensure that the combustion air comes right up to the combustion chamber. The stove operates at 230 V ~ 50 Hz. Make sure that the electrical cord is not underneath the furnace, to be away from the stove, to be away from hot spots, and not to touch any sharp edges that it could interdict. If the stove is electrically overloaded, this can lead to shortening of the lifetime of the electronics of the stove.

**Never turn off the power supply by pulling the plug when there is a burning flame in the stove. This could jeopardize the proper functioning of the stove.**

**3.2 THE SMOKE EXHAUST SYSTEM**

The smoke exhaust must be carried out in accordance with existing standards. Exhaust gas tube should be well sealed (see Figures 1-7).
For smoke exhaustion, one can also use classic brick chimneys while flues can also be made of pipes that need to be well insulated (double wall) and sealed, to avoid creating condensation in them.

The drain tube absolutely must not be connected to other systems of any kind, such as the systems where the smoke is removed from the combustion chamber, exhaust grilles or air distribution system, etc. Also, the smoke exhaust must not be set up in enclosed or semi-enclosed areas such as garages, narrow corridors, underground passages, or at any other places where they is smoke. When the stove is connected to the exhaust gas pipeline, it is necessary to bring professional chimney sweep to verify that the chimney does not even have the tiniest cracks or fissures. If in the exhaust gas chimney there are such cracks, the pipe for smoke exhaustion must be wrapped in insulation for proper functioning.

For this purpose, the tubes that can be used are solid and made of painted steel (minimum thickness 1.5 mm) or from stainless steel (minimum thickness 0.5 mm).

The smoke extraction system (chimney) out of metal pipes must have a grounding in accordance with existing standards and regulations. **Grounding is required by law.**

The **grounding connection must be separated from the grounding for the stove.**

The smoke exhaustion pipe must be done according to the standards in terms of dimensions and materials used for its construction (Figure 1).

A) The top of the chimney is resistant to wind
B) Maximum cross section is 15 x 15 cm or a 15-cm diameter, with the maximum height of 4-5 m.
C) Gasket
D) Inspection hole - for control

Flue pipes that are in poor shape, or are made out of inappropriate materials (asbestos cement, galvanized sheet, etc. with rough or porous surfaces) are inadequate and jeopardize the proper functioning of the stove.

The smoke can be drained through a classic smoke pipe (see next Figure), provided that it meets the following requirements:

- Check the maintenance of the drain flue pipes or chimneys. If the smoke drain pipe is old it should be replaced with a new one. If the chimney is damaged it is good to repair it or rebuild it by inserting a steel pipe that is properly insulated with mineral wool.

- The smoke can be discharged directly into the smoke pipe (chimney) only if it has a cross-section of up to 15 x 15 cm, or a diameter of up to 15 cm, and if there is a cover for checking and cleaning.

- **If the chimney has a larger cross section** than 15x15cm, or a diameter greater than 15cm, a possible increased regulation of draft (its decrease) in the chimney can be made in three ways:

  1. If in the bottom of the chimney there is an opening for cleaning it should be partially open.
  2. Insert a steel pipe in the chimney with a diameter of 10cm, if there is a possibility for such reparation of the chimney.
  3. By adjusting certain parameters in the stove. This adjustment must be done only by an authorized service of Alfa Plam.

- Make sure that the connection to home chimney is properly sealed.

- Avoid contact with material that burns easily (such as wooden beams), and in all cases they should be isolated with anti-fire material (see Figure 2).

A) Mineral wool
B) Steel pipes
C) A baffle plate.
The stove is designed to be connected to the chimney flue pipes with a diameter of 80mm. If you are not using a standard chimney, but you have a new chimney, or you are modifying the existing one, use insulated stainless pipes (double wall) with a diameter given in Table 1. Flexible pipes are not permitted.

<table>
<thead>
<tr>
<th>SYSTEM TYPE</th>
<th>DIAMETER mm</th>
<th>SYSTEM MARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe length less than 5 m</td>
<td>80</td>
<td>acceptable</td>
</tr>
<tr>
<td>Pipe length more than 5 m</td>
<td>100</td>
<td>required</td>
</tr>
<tr>
<td>To be installed in places above 1,200 meters above sea level</td>
<td>100</td>
<td>recommended</td>
</tr>
</tbody>
</table>

Table 1

When using the connecting pipe between the stove and the flue drain pin, be sure to use a "T" connector (as shown in Figures 5 and 6), with the clean-out cover (cap) next to the stove. Applying the "T" connector must enable the collection of ash, which is produced inside the tube, and the smoke drain pipe must occasionally be cleaned without having to remove the tube. The smoke is under mild pressure and therefore it is required to check the cover (cap) for cleaning the exhaust gas system that is perfectly sealed and it remains so after each cleaning. Make sure to perform the same sequence for assembly and check the condition of the seals.

Install the flue pipes pursuant to Figure 7.

It is strictly recommended to avoid the use of horizontal extensions, and if necessary, make sure that the pipe is not bent but that it has the slope of at least 5%. The horizontal part of the drain flue pipes must not in any case exceed the length of 3 m.

It is not recommended to connect the smoke exhaust directly to the stove with a horizontal part longer than 1 m. See Figures 4, 5, 6 and 8. After the T branch it is necessary to set up a vertical extension of Ø 80mm in length for at least 1-1.5 m, and only after that to move to the horizontal extension of Ø 80mm and a vertical extension of Ø 80 or Ø 100mm, depending on the height of the flue pipe (chimney) as shown in Table 1.

When connecting the stove to the chimney using fittings, one must install a knee with a hole for cleaning
(Figure 2a). Using the knee with an opening for cleaning allows for regular cleaning, without the need to dismantle the pipes. Drain gases in the chimney connector are under mild pressure so it is necessary to check that the cover for cleaning the ashes is completely sealed and to seal it after each cleaning. Please make sure everything is properly returned to its place, and check the condition of the seals.

![Figure 2a: Cleaning elements](image)

Ideal vacuum primarily depends on the absence of barriers such as narrowing and/or corner connectors. It is recommended that the knees are 30°, 45 °, and 90 °. Knee at 90 ° shall be three-fold (Figure 2b).

In any case, it is necessary to ensure that the initial part of the vertical flue pipe has the length of at least 1.5 m. Only in this way can you achieve the proper removal of flue gases.

![Figure 2b:](image)

In Figure 3, left, we show how a complete (top) is supposed to look like when you have two chimneys next to each other, and in Figure 3, right, how not to do the end part.
3.3 INSULATION AND THE DIAMETER OF THE OPENING (HOLE) ON THE ROOF (OR IN THE WALL)

Once you determine the position of the stove, it is necessary to make a hole through which a smoke pipe must pass. This varies depending on the type of installation, diameter of the exhaust gas pipe (see Table 1) and the type of wall or roof for the tube to pass. See Table 2. Insulation needs to be made out of mineral wool with a nominal density greater than 80 kg/m$^2$. 

![Diagram](image)
Figure 5

1. Armature 80>100
2. A hose fitting with a T shape

Figure 6

1. A hose fitting with a T shape - a T connector pipeline
2. Cleaning direction
3. Opening, a window for servicing/inspection
4. Cleaning direction
5. A hose fitting with a T shape - a T connector pipeline
6. Cleaning direction
7. A pressure lid for cleaning (plug-in)
Figure 7: Mounting the flue pipe

<table>
<thead>
<tr>
<th>Insulation thickness</th>
<th>Diameter of the smoke exhaust pipe (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D.80</td>
</tr>
<tr>
<td>The walls are made</td>
<td></td>
</tr>
<tr>
<td>of wood, or in any</td>
<td></td>
</tr>
<tr>
<td>case, flammable, or</td>
<td></td>
</tr>
<tr>
<td>parts that are</td>
<td></td>
</tr>
<tr>
<td>flammable.</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>150</td>
</tr>
<tr>
<td>Concrete wall or a</td>
<td></td>
</tr>
<tr>
<td>roof</td>
<td>50</td>
</tr>
<tr>
<td>A wall or a brick</td>
<td>30</td>
</tr>
</tbody>
</table>

Diameters of the holes (holes) to be made (mm)

Table 2: Insulation thickness for the part of the system that passes through the wall or roof

Above all it is necessary to provide the PERFECT AIRFLOW (draft) in pipes for smoke exhaustion that has to be free, without any obstacles, such as different narrowing or corners. All displacements of the axis must have a tilted orbit with a maximum angle of 45 degrees from the vertical, while 30 degrees is the best solution. This displacement would be best done near the top of the chimney resistant to the wind.

According to the regulations (the top of the chimney resistant to wind, distance, and placement of the stove) the distances shown in Table 3 must be met:

<table>
<thead>
<tr>
<th>Roof slope:</th>
<th>The distance between the ridge and the chimney cap</th>
<th>Minimum height of the chimney measured at the top slot (at the back of the chimney)</th>
</tr>
</thead>
<tbody>
<tr>
<td>α</td>
<td>Distance in meters</td>
<td>Height in meters</td>
</tr>
<tr>
<td>15°</td>
<td>less than 1.85 m</td>
<td>0.50 m above the ridge</td>
</tr>
<tr>
<td></td>
<td>greater than 1.85 m</td>
<td>1.00 m from the slope of the roof</td>
</tr>
<tr>
<td>30°</td>
<td>less than 1.50 m</td>
<td>0.50 m above the ridge</td>
</tr>
<tr>
<td></td>
<td>less than 1.50 m</td>
<td>1.30 m from the slope of the roof</td>
</tr>
<tr>
<td>45°</td>
<td>less than 1.30 m</td>
<td>0.50 m above the ridge</td>
</tr>
<tr>
<td></td>
<td>greater than 1.30 m</td>
<td>2.00 m from the slope of the roof</td>
</tr>
</tbody>
</table>
However, it is required to provide an initial vertical extension of 1.5 m (minimum) in order to provide proper discharge of smoke.

3.4 COMBUSTION AIR SUPPLY (Figure 8)

The air required for combustion, which is taken from the environment, must be supplied by a single ventilation grill mounted on the outer wall of the room. This will ensure better combustion and thus lower consumption of pellets. It is not recommended to have outside air drawn directly from the tube, as it will reduce the efficiency of combustion. A ventilation shaft must always be equipped with one ventilation grille on the outer side as protection from rain, wind, and insects. This hole must be made on the outer wall of the room where the stove is located.

The supply of combustion air from the garage, a warehouse for combustible materials, or from a room where there are risks of fire is prohibited.

The opening of the outer supply of combustion air must not be connected by pipes.

If the room has some other devices for heating, the supply of combustion air must ensure the amount of air that is required for proper operation of the device.

For proper and safe placement of ventilation grilles see data given in Table 4. These are the minimum distances from each airspace or smoke extraction. This value can change the configuration of the air pressure. It should correspond to the ordering to secure that the open window draws outside air, depriving the stove of it.

![Figure 8: Minimum gaps for setting up ventilation grilles.](image)

<table>
<thead>
<tr>
<th>Ventilation grid must be set up at least</th>
<th>doors, windows, gas exhausts, air chambers, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 m</td>
<td>under</td>
</tr>
<tr>
<td>1 m</td>
<td>horizontally from</td>
</tr>
<tr>
<td>0.3 m</td>
<td>above</td>
</tr>
<tr>
<td>2 m</td>
<td>from the smoke exhaust</td>
</tr>
</tbody>
</table>

Table 4: The minimum distance for the supply of combustion air

3.5 CONNECTING THE POWER

These stoves are connected to electricity. Our stoves have electrical cables that are suitable for medium temperature. If you need to replace the power cord (if it is damaged, for example) then consult with our authorized technical staff. Before you plug in the electric stove note the following:
- That the characteristics of electrical systems correspond to the information that is specified in the data on the identification plate on the stove.
- If the smoke extraction system is metal, it must have a grounding terminal in accordance with the existing standards and legislation. **Grounding is the law.**
- The electrical cable must not at any time reach a temperature that is $80^\circ C$ above the ambient temperature. When the stove is installed and placed in its spot, a bipolar switch or socket must be easily accessible.
- If the stove is not used for a long time, unplug it or switch to the switch off (0) position. In the event of failure or malfunction, turn off the stove right away or switch to a switch off (0) position and contact an authorized service center.

### 4.0 IMPORTANT INSTRUCTIONS

**THE FOLLOWING INSTRUCTIONS ARE REQUIRED FOR THE SAFETY OF PEOPLE, ANIMALS, AND PROPERTY.**

We wish to inform the installer of the stove on some of the general guidelines which must be followed for proper installation and for proper stove mounting. These standards are required, but not completely. For further and more detailed information one needs to read the rest of this instructions manual.

- Plug the stove into an outlet that is grounded. Figure 9
- The switch on the rear of the stove is set to position 1. Figure 10
- Do not allow children or pets to be near the stove.
- Use pellets only, not other fuel.
- Notify all users about the potential risks and dangers and teach them how to handle the appliance.
- If the stove is placed on a wooden floor, then it is recommended to isolate the pedestal on which it stands.

The stove operates with a combustion chamber, which is in the negative pressure. **Therefore, make sure that the smoke is well thermally insulated.**

When the stove is turned on for the first time then, due to the stabilization process a small amount of paint (not harmful to health) that covers the stove vaporizes. It is therefore necessary to air the room so that it is cleared from the fumes.

### 5.0 WARNING SAFETY MEASURES FOR STAFF

**MAINTENANCE**

The contractors who work in maintenance, in addition to following all safety measures, must:
- Always use safety equipment and personal protective equipment,
- Turn off the power supply before they start working,
- Always use the appropriate tools.
- Before they begin any work on the stove they need to keep in mind that it should be cold and that the ashes should be cold as well. They need to make sure the handles are cold as well.
- **NEVER TURN THE STOVE ON** if there is just one of the safety devices that is defective, improperly set up or it does not work at all.
- Do not make modifications of any kind, for any reason, other than those permitted and explained by the manufacturer himself.
- Always use original spare parts. Never wait until the components wear out before you replace them. Replacing the worn parts, or the components of the stove before they stop working contributes to the prevention of damage caused by accidents due to sudden failure, or breaking of the components, which can lead to serious consequences for people and/or property located around the stove.
- Clean the firebox before lighting the stove.
- Make sure there is no condensation. If condensation occurs it shows that there is water from the cooling smoke.
We recommend you find the possible causes to be able to establish a regular and correct operation of the stove.

### 5.1 WARNING SAFETY MEASURES FOR THE USER

The place where the stove is to be set up, called the mounting place, must be prepared by local, national, and European regulations.

The stove is a “heating machine” and while it is on it has outer surfaces that are very hot or that achieve very high temperatures.

This stove is designed to burn fuel from pressed wood mass (a pellet with a diameter of 6 mm to 7 mm, with the length of 30 mm, with maximum moisture 8-9%).

**It is therefore very important to pay attention to the following when the stove is on:**

- Do not approach and touch the glass on the door, there is a BURNING HAZARD
- Do not approach and touch the smoke drain pipe, there is a BURNING HAZARD
- Do not do any cleanups
- Do not open the door because the stove is working properly only when it is sealed
- Do not throw away the ashes when the stove is ON
- Children and pets need to stand away from the stove
- FOLLOW ALL INSTRUCTIONS GIVEN IN THIS MANUAL

**Likewise, the proper use of biofuel pellets means:**

- Only use the fuel that meets the manufacturer's instructions,
- Always follow the maintenance plan for the stove,
- Clean the stove every day (only when the stove and the ash are cold),
- Do not use the stove in case of any defects or abnormalities, in the case of unusual noise and/or suspected faults,
- Do not spray water on the stove, even when firefighting,
- Do not turn off the stove by pulling the plug. Use the button on the board to turn off,
- Do not tilt the stove, IT MAY BECOME UNSTABLE,
- Do not use the stove as a support or a holder. Never leave the tank lid open.
- Do not touch the dyed parts of the stove while it is ON,
- Do not use wood or coal as a fuel, **but only the pellet** with the following characteristics: diameter of 6-7 mm, maximum length 30 mm, maximum moisture content 8-9%,
- Do not use the stove to burn waste,
- Always perform all operations with maximum security measures.

### 6.0 SAFETY GUIDELINES FOR IGNITION AND CLEANING OF THE STOVE
- For turning the stove ON never use gasoline, kerosene or any other flammable liquid. Keep these types of fluid away from the stove while it is running,
- Never turn the stove ON if the glass is damaged. Do not strike the glass or the door so that they do not get damaged,
- While the stove is ON, do not open the door to clean the glass. Clean the glass only when the stove is cold, using a cotton cloth or paper towel and a glass cleaner,
- Make sure the stove is secure to prevent any movement,
- Make sure that the ash box is inserted and that it is fully closed, so that the doors are leaning properly on the box,
- Make sure the stove door is firmly closed while the stove is ON,
- Use a vacuum cleaner to pull the ashes from the stove only when the stove is completely cool,
- Never use abrasive cleaners for cleaning the surface of the stove.

6.1 ROUTINE CLEANING AND MAINTENANCE DONE BY THE USER OF THE STOVE

Use a drum shaped vacuum cleaner that can facilitate cleaning the stove. The vacuum cleaner must have a filter that will prevent the sucked dust to go back into the room where the stove is located.

Before you get started with routine maintenance, including cleaning, take the following precautions:

- Turn off the stove from the power supply before you start doing anything,
- Before you start doing anything make sure the stove and the ash are cool,
- Use the vacuum cleaner to vacuum up the ash from the combustion chamber every day,
- Using the vacuum cleaner carefully clean the firebox every day (after each use and when the stove is cool)

- Always make sure the stove and the ashes are cool.

- FIREBOX (box-shaped) - it burns the pellets made out of wood mass. See Figure 11. It is recommended that the firebox be vacuum cleaned after each use, every day (when the stove is cool). Every day, it is recommended to take out the firebox and to make sure that there is no residual ash at the bottom of it, as well as unburned pellets that were collected at the bottom of the firebox. Then put the firebox back and set it firmly into place to ensure the safe running of the stove. The firebox must sit straight - horizontal, it must not be tilted! The sealing tape from the underside of the firebox must be in its place, and must not be damaged.

If you are not sure, do not hesitate to call an authorized service center for explanation and additional information, since the manufacturer does not know what the situation is with the connection and maintenance of the stove and gives no warranty for the connection of the stove and its maintenance.

The manufacturer does not assume any responsibility for damage caused by third parties.
The ash container should be vacuumed or emptied if it is full.

**Make sure the stove and the ash are cool.**

Upper ash container must be cleaned _every or every other day_, by vacuuming or by simply throwing the ashes away. This will get rid of any impurities that remain inside when the pellets are burning. The container then has to be returned to its proper place. Never put a pellet that has not burned in the ash container.

Lower ash container must be cleaned _once every seven or 10 days_, by vacuuming or by simply throwing the ashes away. Before that, loosen the two butterfly nuts. This will get rid of any impurities that remain inside when the pellets are burning.

At the same time, use a vacuum cleaner to suck up the ash in the smoke chamber through an opening in the front of the boiler bottom ash tray.

The container then has to be returned to its proper place.

**SMOKE PIPES IN THE BOILER**

They need to be cleaned manually with a special key for every 40-50 kg of spent pellets (one full tank of pellet). First use the key to lift up small round lids with openings, two of them, that are located on the cover of the stove at the top. Using the same key go into the openings of the lever - the pins which are connected to the cleaning levers, and dust them a few times by lifting them up and putting them down, as shown in Figure 12.
- UPPER SMOKE CHAMBER

Should be manually cleaned for every 90-100 kg of spent pellets (two full tanks). Lift the tank lid for the pellet. In the tank, in the upper front part, under the lid, there is a button for the chamber cleaning mechanism. By pulling the mechanism button a few times back and forth you will clean the chamber. Do not worry if the mechanism moves slowly, if it scratches, or gets caught. This is how it cleans the chamber.

Clean the stove only when it is cold. At the end of the cleaning, push the button all the way back (pull it) so that you can see the button and the bar of the cleaning mechanism. See Figure 13.

- GLASS DOOR (check and clean periodically):

Make sure the stove and the ash are cool. Clean the glass with a soft cloth. Glass is made from pyroceramics resistant to high temperatures. In case of damage, before re-using the stove, replace the glass. The glass must be replaced only by the authorized persons.

Make sure the stove and the ash are cool.

Smoke exhaust fan area should be checked and cleaned every six months.

Cleaning the interior flue exhaust is done by first removing the cover on the bottom of the box for the ashes and inserting the vacuum cleaner hose through that hole, as to vacuum out the remaining ashes, Figure 14.

- GENERAL CLEANING AT THE END OF THE HEATING SEASON

Make sure the stove and the ash are cool - unplug the stove from the power supply.

At the end of the heating season, to be safe, unplug the stove from the power supply. It is important to clean and check the stove, as explained in the above points.
Make sure the stove and the ash are cool.

After prolonged use, it is possible that the asbestos tape for sealing the door separates. This sealing tape sticks to the door with silicone resistant to high temperatures. To resolve this, tape the back of it using an adhesive that is resistant to high temperatures. This is very important for good sealing of the doors.

6.2 CLEANING AND MAINTENANCE (for employees who do maintenance)

FLUES - CHIMNEY should be cleaned every six months or after burning two tons of pellets.

Make sure the stove and the ash are cool.

The smoke channel (chimney) is resistant to wind and has to be checked and cleaned every year, best at the beginning of the heating season. It is best to pay the authorized professional contractors for their cleaning. The places that need special attention when cleaning are shown in Figure 15.

![Figure 15: Places that need to be cleaned at least twice a year](image)

6.3. SPECIAL MAINTENANCE

Your stove is a heat generator that uses pellets as solid biofuel. This is why you should do special maintenance once a year. This is best done at the beginning of the heating season. The purpose of the special maintenance is to ensure proper and efficient operation of the stove.

7.0 IMPORTANT SAFETY INFORMATION

You have purchased a product of the highest quality. The manufacturer is always at your service to provide you with all the information you may need regarding the stove and instructions for assembly and installation in your geographical conditions. Properly connecting the stove, according to these instructions, is very important to prevent the danger of fire and any defects.

The stove works with a combustion suction pressure. Therefore, make sure that the smoke is well thermally insulated.

**DANGER!**

In case of fire in the smoke exhaust pipe take all the people and pets out of the room, unplug the power supply using the power switch in the house or remove the plug from the wall (plug must always be easily accessible and free of obstacles), and immediately call the fire department.

**DANGER!**

You cannot use conventional firewood.
DANGER!
Do not use the stove to burn waste.

8.0 THE PELLET QUALITY IS VERY IMPORTANT

This stove uses pressed wood (pellet) as fuel.

As there are many products like this on the market it is important that you select pellets as fuel that is not dirty. Make sure you use high quality pellets that are compact and with a little bit of dust.

Ask your sales representative or the manufacturer for the best pellet, with a diameter of 6 - 7 mm, the longest side 30 mm. Proper operation of the stove depends on the type and quality of pellets, since the heat obtained from different types of pellets can be of varying intensity.

When the pellet is poor quality the stove will have to be cleaned more often.

Manufacturer of the stove does not bear any responsibility for poor performance of the stove in case of use of the pellets of inappropriate quality.

8.1. STORING THE PELLET

The pellets must be kept in a dry place that is not very cold. Cold and moist pellets (at the temperature of around 5°C) reduce the thermal power of the fuel and require additional cleaning of the stove.

THE PELLETS MUST NOT BE KEPT CLOSE TO THE STOVE. Keep them at least 2m away from the stove. Handle the pellets carefully and do not break them.

WARNING: If the fuel tank is filled with sawdust or small (decomposed) pellets, it can prevent the insertion of the pellets. Such pellets can lead to burning the electric motor that drives the mechanism for the insertion of pellets, or damage the gear that works in conjunction with this electric motor. If the bottom of the pellets reservoir, or, at the bottom of the gear unit when the tank is empty you see such a pellet, suck it up with a vacuum by swiping the tube through open grates of the pellets.

9. CONNECTING THE HYDRAULIC INSTALLATIONS

1. The Dino Stove
2. Chimney connector
3. Distribution pipe
4. Expansion container (in the stove)
5. Safety valve (in the stove)
6. Radiator valve
7. Radiator
8. Breather valve
9. Circulation pump (in the stove)
10. Return pipe
11. Charging and discharging tap (in the oven)
IMPORTANT:

Connecting the stove on a hydraulic installation can be done exclusively by qualified technicians, who can do this in accordance with applicable regulations of the country in which the installation is done.

ALFA PLAM disclaims all liability in case of material or bodily harm, in the event of failure, poor functioning, if the above recommendations are not followed.

The stove is designed for central heating.

The stove is prepared for a closed heating system. Follow the SRPS guidelines.

The back of the boiler with the connectors is given in Figure 16.
10. PRESSURE AND RETURN PIPE
Outputs of the pressure and return pipes on the boiler are 1” and you cannot reduce them or taper to the first bifurcation. Use a 1” steel pipe or a copper pipe with the outside diameter of Ø28mm or greater.

When installing, strictly observe the slopes of pipes as they need to be at 0.5% (5mm. per meter of pipe) and the venting system (boiler, pipes, radiators).

Set up a thermo hydrometer at the pressure line to show the water pressure in the system and the water temperature at the back end of the boiler.

11. BUILT-IN COMPONENT OF THE STOVE
- In the stove, there are the following built-in components:
  - Safety valve
  - Circulation pump
  - Automatic air valve
  - Expansion container and
  - Charging and discharging tap
For this reason there is no need to install these components again. The stove is complete, which is a great advantage most all of because there is no need for additional space for the listed components.

11.1. SAFETY VALVE
It is set up under the lid of the stove on the pressure line. Input connection is R1/2”. It opens with water pressure of 2.5 bar. You can get to it by removing the right lateral side, when you are looking at the stove.

The output safety valves whose connection protrudes through the rear wall above the pressure line should be put into the sewer pipes.

11.2. CIRCULATION PUMP
A high-quality Wilo RS 25/6 – circulation pump has been built into the stove on the return line of R1". The power of the pump is 93W. It is turned on and off by the electronics by the set water temperature.

The pump shaft has to be in a horizontal position. For this reasons, when connecting with the installation make sure that the pump does not turn around! Firmly hold galvanized bolt at the end of the back side.

You can reach the pump by removing the left lateral side, when you are looking at the stove.

Note:

If the stove and the pump have been idle for a long time (a month, for example), the pipe shaft can stick to the base, it may not move the water, or it can burn out. If when starting the stove when the water in the boiler heats up the water pump does not start, if the radiators do not heat up when the set temperature is reached, if you do not hear the murmur of water (moving), or if the boiler temperature rises and radiators are not warming, remove the left lateral side as indicated in the previous paragraph, and get to the pump. Put a cloth under the pump and using a flat screwdriver with the tip width of 5 - 7mm, unscrew the short screw from the front of the pump. There will be a little bit of water coming from the pump, which is normal. Push the screwdriver into the opening of the pump, reach the groove of the pump shaft and rotating the screwdriver and the shaft to the right and left break in the pump shaft. Put the pump screw back in its place into the opening of the pump and tighten it. Make sure that the rubber from under the screw does not come out.

11.3. AUTOMATIC AIR VALVE

There is an automatic air valve on the pressure line under the lid. It is suppose to drain the air out from the boiler.

You can get to it by removing the right lateral side, when you are looking at the stove.

The cap valve must be loose, not tight, so that the air can come out of the boiler and installations smoothly.

11.4. EXPANSION VESSEL

There is an expansion vessel built into the stove with a volume of 10 litres. Its function is to stabilize the pressure in the boiler and in the heating installation. The factory set pressure in the vessel is 1 bar.

11.5. CHARGING AND DISCHARGING TAP

As its name says, this is a charging and discharging tap.
It is located in the back side, down.
The input connection is a R1/2", while the output has an extension for the hose.

12. INSTALLING AND IGNITING

Before the combustion starts entire system of central heating should be water-filled, well-vented, and the stove properly connected to the chimney, as discussed in previous counts.

Recommended operating pressure of water is 1 to 1.9 bar. Best to be within the limits of 1.2 to 1.6 bar.
The test pressure can be up to 1.9 bar.

NOTE:

The stove must not be used without water. It must be tied to the installation to which the consumers are connected (radiators) with minimum power of 8 kW.
13. PRACTICAL INSTRUCTIONS AND TIPS FOR THE USE OF THE HEATING SYSTEM
- All connections must be well sealed and fastened. There must be no leakage of water.
- Before you turn the stove on for the first time, the complete installation shall be tested with water at a maximum pressure of 1.9 bar.
- It is preferred that the water be at least once released out of the system due to the dirt which is located in the system.
- Make sure that all valves between the stove and the installation are open.
- Make sure that all the air from the boiler and installation is released before placing the boiler in operation. For this reason, the installation should be filled with water slowly so that the air manages to get out of the installation.
- During the ignition and cooling phase, the stove can expand and contract, and at the same time you can hear little crackling. This is absolutely normal, because the structure is made of steel and this certainly cannot be regarded as a disadvantage.
Basic programming that is done in the factory guarantees proper operation and prevents overheating problems when you first turn on the stove, and for later as well.

14. FILLING WITH WOODEN GRANULES
Refuelling is done on the upper side of the stove by opening the lid. Put the wooden granules in the tank. Its load capacity when it is empty is about three 15 kg bags, a total of 45 kg of pellets.

To simplify the procedure, do this in two stages:
- Put half a bag into the tank and wait until the pellets reach the bottom. Turn the stove on.
- When the stove starts to work normally put the pellets as needed in the storage for pellets.
- Do not ever remove the security grid from the tank. When putting the wooden granules in, prevent the bag from coming into contact with hot surfaces.

15. OPENING AND CLOSING OF THE FIREBOX DOOR
ATENTION: Do not open the firebox door while the stove is working because the efficiency of the stove drops considerably.

For proper operation of the stove, it is necessary that the firebox door is sealed tightly.

Firebox door opens and closes with a handle accompanying the stove as an additional part. The handle is situated in the upper ash container (ash-bin), together with the connecting cable, union gasket parts, key for cleaning smoke pipes and the instruction.

A method of opening the firebox door is shown in Figure 17. Insert the handle (Pos.2, Fig.1) into the door latch on the fire door (Pos.1, Fig.1) and turn the handle clockwise. Closing of the firebox door is done the same way by turning the handle counterclockwise until the firebox door is sealed tightly.
NOTICE: this method of opening and closing of the door is applied for additional safety of users because it prevents accidental opening of the firebox door, and in particular prevents the children from opening the door, which could cause injury.

16. OPENING AND CLOSING OF THE PELLET TANK

ATTENTION: For proper operation of the stove while working, it is necessary that the pellet tank is closed properly for preventing the uncontrolled intake of room air into the combustion chamber.

A method of closing and opening the tank lid is shown in Figure 18. Insert the handle (Pos.1, Fig.18) into closing mechanism hole (Pos.2, Fig.18), press the tank lid (Pos.3, Fig.18) from the top and turn the handle clockwise until the lid is sealed properly. Opening of the tank lid is done the same way by turning the handle counterclockwise (or in the same direction as when closing), until the tank lid is opened.

![Figure 18](image)

17. OPENING AND CLOSING OF THE UPPER ASH CONTAINER (ASH-BIN)

Opening and closing of the upper ash container (ash-bin) is shown in Figures 19 and 20. It can be done with a handrail positioned on the ash container or with the aid of a special key.

Figure 19 depicts manual opening of the upper ash container by turning the handrail (Pos.1) towards yourself. Closing of the ash container is done by aligning the ash container with the front side of the stove and turning the handrail all the way towards the front side of the stove.
Figure 20 depicts the opening of the upper ash container with a special key (Pos.1) whose end is inserted into a hole on a handrail and pulled towards yourself. Key is delivered with the stove as an additional part. Closing of the ash container is done by aligning the ash container with the front side of the stove and turning the handrail all the way towards the front side of the stove. Do not use the key when closing.

Notice:
Upper and lower ash containers (ash-bins) must be closed and sealed tightly!
18. DESCRIPTION AND MODE OF OPERATION OF THE CONTROL SYSTEM

18.1. DESCRIPTION OF THE PUSH BUTTON DISPLAY

**Pointers**

**Function**

- **Upper pointer** shows the status of the stove, the selected menu, the operation doze indicator, and the operation of the time-control indicator program.

- **Lower pointer** shows the current time, the value of the settings and the parameter, as well as the names and warnings.

- **Lighter indicator**

- **Circuit pump indicator**

- **Dosing indicator**
The display when the stove is running in the combustion stage

Upper pointer: The upper display alternately shows: **BURN**, and then **P5D5**, with **Px** actual current running force, and **DX** adjusted running force.

Lower pointer: The lower display alternately shows:
The temperature of the flue gases: **155**
The boiler water temperature: **B72**
The room temperature: **A18**
Boiling water return line: **r45**

The display when the boiler is OFF

Upper pointer: **OFF**

Lower pointer: Clock: **6:35 PM**

**Push button** | **Function**
---|---
**ON/OFF push button**
Long press the on/off switches of the stove
Short pressing brings you back to the initial display.

**Push button +**
Pressing while the stove is running increases the set power.
With the last pressing of the MENU button, this push-button increases the desired room temperature.
By pressing the menu we select a submenu.

**Push button -**
Pressing while the stove is running decreases the set power.
With the last pressing of the MENU button, this push-button decreases the desired room temperature.
By pressing the menu we select a submenu.

**MENU button**
By briefly pressing the home screen, the display will show the set value for the room temperature that can be adjusted by pressing the + and -. Pressing for more than 2 seconds will activate the display menu. Pressing for more than 4 seconds will activate the advanced settings of the menu. By continuing to press this button we will see all menu options one after the other. For the choice of the parameter in the submenu we use the + and - buttons. By pressing the MENU button again we activate the flashing of the set parameter values, which can be adjusted by pressing the + and -.
Briefly press the ON/OFF button to return to the initial display.
18.2. WHEN THE BOILER IS ON
The display shows the current phase of the mode of operation (for example TestFire, HeatUp, etc.) and
alternately on the upper display shows every 5 seconds the set and the actual capacity of the boiler.

By pressing the **+ button** you will increase the power of the stove, while by pressing the **- button** you will
decrease it.

By pressing the **MENU button**, the display will show the set value for the room temperature that can be
adjusted by pressing the + and -.

By pressing the **MENU button** again, the display will show the set value for the water in boiler
temperature that can be adjusted by pressing the + and -.

The stove works with the preset power until the room temperature reaches the modulation threshold or
until flue gases reach their limit values. In the first case the regulation of H2O is shown, while in the
second case the Gas regulation is shown.

In the event of a short power interruption (up to 2 minutes) after the power is restored, the stove
continues to operate in a manner as before the power failure. If the interruption is prolonged, the stove
automatically executes the safety shut-off and cooling so you should turn it back on.

18.3. TURNING THE BOILER OFF
Pressing the **ON/OFF button** for longer than about half a second while the stove is running the display
shows **ON** and **OFF**. Once the button is released, the stove begins the process of turning off. The screw
conveyor stops, **STOP FIRE** shows on the display, fans operate at maximum speed to clean the firebox.
Once the combustion chamber is cooled down to the appropriate temperature, the stove shuts down and
goes into sleep mode. The display will read **OFF**.

**TURNING THE BOILER ON**
Pressing the **ON/OFF button** for longer than about half a second while the stove is not running the
display shows **ON** and **OFF**. Once the button is released, the stove begins the process of turning on. The
display reads **TESTFIRE**, fans are working at full speed to clean the combustion chamber, screw
conveyor is not moving, the lighter is heated. After that, if the temperature of the stove is low, it will start
the process of **HEATING UP** in which the pellets are quickly dispensed and the fans rest. After that the
procedures Fuel IGNI and Test IGNI are started while the boiler reaches the conditions for transition to
the **(BURN)** burning phase.

ATTENTION

Pressing the **MENU button** for 2 seconds (after you let go of the button th20 is displayed) the
current room temperature is displayed. Press the + or - to choose other temperature and fan
display status.

18.4. SETTING UP THE TIME-CONTROLLED PROGRAM
Long pressing (until TIMER is shown) on the **MENU button** opens a menu time-controlled program.

Select ON or OFF to include or exclude the time-controlled program. It is necessary to set up the exact
time and day of the week (1 is Monday ... 7 is Sunday) and then program 6 programming periods and
temperatures.

Each of the 6 time periods is limited to the initial (P1a - Program 1 onset) and final time (P1d - Program 1
offset). Within this period, the stove is turned on and working to maintain the room temperature that was
set up (P1t).
After that, for every day of the week we choose 3 time periods.

For example, for Tuesday the upper display shows DAY2, and the lower display shows P1, P3, and P6, which means that on Tuesday the boiler will work in periods programmed in programs P1, P3, and P6.

*Figure 22: Time setting diagram*
Figure 23: Showing the navigation through the menu timer
18.5. SIGNS AND MESSAGES ON THE DISPLAY

<table>
<thead>
<tr>
<th>Signs on the pointers</th>
<th>The meaning of the message and the status of the stove</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OFF</strong></td>
<td>The stove is idle.</td>
</tr>
<tr>
<td><strong>1253</strong></td>
<td></td>
</tr>
<tr>
<td>*<strong>OFF</strong></td>
<td>The stove is idle, but the time mode is activated, so that it turns on automatically at the time that was set up.</td>
</tr>
<tr>
<td><strong>1253</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TEST</strong></td>
<td>The stove checks whether there is adequate combustion and flame in the combustion chamber. This process is activated after the power supply interruption.</td>
</tr>
<tr>
<td><strong>FIRE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Heat UP</strong></td>
<td>In the ignition stage, after the screw conveyor fills the firebox, the lighter heats up the pellets to ignition.</td>
</tr>
<tr>
<td><strong>Fuel IGNI</strong></td>
<td>After the Heat up phase the stove ignites the pellets. At this stage, there is no dosage.</td>
</tr>
<tr>
<td><strong>TST IGNI</strong></td>
<td>At the end of the ignition phase the lighter turns off the stove and examines whether the ignition was successful, is the burning proper, and are the temperatures increasing properly.</td>
</tr>
<tr>
<td><strong>BURN 123°</strong></td>
<td>Burning phase (which is normally the working phase). Lower pointer shows the temperature of the flue gases at the back end of the stove.</td>
</tr>
<tr>
<td><strong>BURN B78°</strong></td>
<td>Burning phase, the lower display shows boiler water temperature.</td>
</tr>
<tr>
<td><strong>BURN R48°</strong></td>
<td>Burning phase, the lower display shows the return line water temperature.</td>
</tr>
<tr>
<td><strong>BURN A 18 °</strong></td>
<td>Burning phase, the lower display shows the room temperature.</td>
</tr>
<tr>
<td><strong>PSD5 R48°</strong></td>
<td>The upper pointer shows the current power of the stove (Px) and the set up power of the stove (Dx).</td>
</tr>
<tr>
<td><strong>CLEN FIRE</strong></td>
<td>Cleaning phase. The fan blows the ash and other debris from the firebox. This phase occasionally runs automatically in the burning phase.</td>
</tr>
</tbody>
</table>
The stove is in the process of stopping and cooling.

When even with the minimal force the room temperature reaches a certain level the stove goes into the COOL AIR phase and begins to cool down. The stove is automatically switched on again after the room temperature falls to a certain value.

In the burning phase there are pellets missing.

Ignition failed. Check the condition of the stove, clean the firebox, and try igniting the stove again.

The safety thermostat reacted. Check the condition of the stove, and if you do not see any obstacles, manually reactivate the safety thermostat and turn the stove back on. Otherwise, contact the service center.

The safety thermostat reacted. Check the condition of the stove, and if you do not see any obstacles, manually reactivate the safety thermostat and turn the stove back on. Otherwise, contact the service center.

No signal from the transducer flue gases. Contact the service center.

No signal from the temperature firebox. Contact the service center.

No signal from the flow, or the fans are not working properly. Contact the service center.

It is necessary to clean the stove and/or chimney.

No signal from the temperature firebox. Contact the service center.

The temperature of the flue gases is too high.
18.6. ELECTRICITY SCHEME

Figure 24 Electricity scheme
18.7. MENUS

If you press and hold the **MENU button** the menus will show one after the other. To select the menu you need to let go of the button when you see the respective menu. The descriptions of the menus are listed below.

*Figure 25: Menu description*
18.8. ALARMING SITUATIONS

ALARM FIRE

- ignition failed

Are there pellets in the reservoir? (NE)

- Fill the reservoir with pellets

Is the thermostat activated? (DA)

- Turn protection off by pressing the thermostat button

Does the mechanical pressure switch of the underpressure in the firebox work? (NE)

- 1. Check the pressure switch artificially created by the underpressure
   2. Check if the doors are tight and check the lid on the stove
   3. Check the air intake in the room where the stove is
   4. Check the suction pressure of the chimney
   5. Check if the firebox is clogged or dirty

- serviser

Is the heater working? (DA)

- 1. Replace the heater
   2. Check the relay - output signal from electronic board
   3. Check the safety relay
ALARM PELL

There are no pellets

Are there pellets in the reservoir?  
DA  
Is the thermostat activated?  
DA  
Turn protection off by pressing the thermostat  
NE  
(serviser)

Does the mechanical pressure switch of the underpressure in the firebox work?  
DA  
Is the auger working?  
NE  

1. Check if the auger is blocked  
2. Check the safety relay  
3. Check the thermostat  
4. Check the white pressure switch

Fill the reservoir with pellets
ALARM PRESS

Air flow through the firebox

Clogged air supply?

DA

(serviser)

NE

Is the overpressure FAN 1 ventilator working?

DA

Are the tubes between the electronics and the flow meter working properly?

DA

Is the flow meter not working?

DA

Check the electronics

NE

1. Check the air supply in the room
2. Check the air supply for the stove
3. Check if the firebox and the space under it are dirty

NE

1. Check the voltage at the back end of the electronics
2. Check the white round safety pressure switch
3. Check the thermostat
4. Check if the safety relay is working
5. Replace the ventilator

NE

1. Replace them if they are severed or damaged
2. If they are clogged or pressed, clean them or position them correctly
ALARM AIR
The safety pressure switch has stopped working

serviser

Is the gas exhaust system working properly?

1. Clean the ventilator
   2. Clean the chimney
   3. Clean the connecting pipe

Are the doors and lids tight enough?

They need to be realigned; if necessary, change the tightening tape

Are the ventilators working properly? Especially the smoke ventilator?

Change the smoke fumes ventilator Fan 2

Check if it works using the artificial under-pressure and an ohmmeter Is it working?

Change the white pressure switch

Is the charger clogged?

Clean the charger

Does the underpressure gauge work?

Change the underpressure gauge (plastic round black pressure switch)
Attn FAN1

Fan 1 has reached maximum speed but the air flow is not enough

Clogged air supply?

DA

Are the tubes between the electronics and the flow meter working properly?

NE

Are the tubes between the electronics and the flow meter working properly?

NE

Are the tubes between the electronics and the flow meter working properly?

DA

Is the flow meter not working?

DA

Is the flow meter not working?

NE

Is the flow meter not working?

NE

Is the overpressure FAN 1 ventilator working?

NE

1. Check the air supply in the room
2. Check the air supply for the stove
3. Check if the firebox and the space under it are dirty

DA

1. Replace them if they are severed or damaged
2. If they are clogged or pressed, clean them or position them correctly

NE

Check the electronics

DA

Check the electronics

NE

Is the overpressure FAN 1 ventilator working?

NE

1. Check the voltage at the back end of the electronics
2. Check the white round safety pressure switch
3. Check the thermostat
4. Check if the safety relay is working
5. Replace the ventilator

serviser
**ALARM STB**

Safety thermostat is ON

- Is the temperature of the dozing tube more than 95°C?
  - **DA**: Cool the stove off and press the button on the thermostat.
  - **NE**: Replace the thermostat
  - **NE**: Check the wiring between the thermostat and the electronics using the scheme

**ALARM GAS**

Temperature of the gas smoke is too high (over 250°C)

- **Serviser**

Is the charger clogged?
  - **DA**: Check and clean the charger
  - **NE**: When cleaning automatically, check the cleaning mechanism

Are turbulators in their place?
  - **NE**: Put them back in their place or change them
ALARM TC1

The electronics do not recognize the flue gases temperature sensor

serviser

Is the sensor connected?

DA
Replace the sensor

NE
Connect the sensor to the appropriate place on the electronics

ALARM TC2

The electronics do not recognize the firebox temperature sensor

serviser

Is the sensor connected?

DA
Replace the sensor

NE
Connect the sensor to the appropriate place on the electronics
**ALARM NTC1**

The electronics do not recognize the water in the boiler sensor

Is the sensor connected?

- **DA** → Replace the sensor
- **NE** → Connect the sensor to the appropriate place on the electronics

**ALARM NTC2**

The electronics do not recognize the return line sensor

Is the sensor connected?

- **DA** → Replace the sensor
- **NE** → Connect the sensor to the appropriate place on the electronics
19. SAFETY MEASURES

The stove is equipped with the following safety devices:
- PRESSURE REGULATOR
  Checks the pressure in the chimney. It stops the spiral conveyor of the pellets when the drain is clogged or when there is pressure (wind).
- FLUE GASES TEMPERATURE SENSOR
  Checks the temperature of flue gases that allow the stove to be turned ON or stop the ignition if the flue gas temperature drops down below the programmed value.
- CONTACT THERMOSTAT ON THE SNAIL BASE
  When the temperature goes over the set safety value the stove will turn off immediately.
- BOILER CONTACT THERMOSTAT
  When the temperature goes over the set safety value the stove will turn off immediately.
- WATER TEMPERATURE SENSOR
  When the water temperature comes close to the stop-temperature (80 °C) the sensor triggers the stove to do a series of cooling cycles or turns the stove off automatically using the ECO-STOP in order to prevent blocking of the above-described capillary temperature sensor.
- ELECTRIC SAFETY
  The stove is protected from high current disturbances using standard fuses that are located in the main switch on the back side of the stove and on the control panel - the motherboard.
- FLUE GASES FAN
  If the fan stops, the motherboard immediately blocks the supply of pellets and an alarm signal will show.
- GEAR MOTOR
  When the gear motor stops working, the stove keeps on working until the flame, due to the lack of oxygen, goes out and until the stove reaches the minimal cooling level.
- INTERRUPTION OF ELECTRICITY
  If there is a short interruption of electricity the stove automatically starts to cool down.
- NO IGNITION
  If there is no flame when you turn the stove on the stove goes into an alarming state.

20. FAILURES - CAUSES – SOLUTIONS

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| Wooden granules are not put into the firebox, in the combustion chamber. | 1. The wooden granules tank is empty.  
2. The infinity spiral is blocked.  
3. The gear motor of the infinity spiral is defective.  
4. Electronic card is defective. | 1. Fill the tank  
2. Empty the tank and unblock the spiral - snail  
3. Change the gear motor  
4. Change the electronic card |
| The flame is out or the stove turns off automatically. | 1. The wooden granules tank is empty.  
2. The combustion chamber is not supplied with the wooden granules.  
4. The doors are not closed properly or the glass sealing is worn out.  
5. Inadequate wooden granules.  
6. Poor supply of wooden granules.  
7. The combustion chamber is empty.  
8. The chimney is clogged.  
9. Interference of failure of the pressure switch.  
10. The smoke vacuum motor is defective. | 1. Fill the tank with wooden granules.  
2. See last instruction.  
3. Let the stove cool off completely and turn in back on again. If the problem persists call technical support.  
4. Close the door or change the glass sealing with original sealing.  
5. Change the type of the wooden granules and pick the type that is approved by the manufacturer.  
6. Check the dosage and settings.  
7. Clean the combustion chamber as instructed in the manual.  
8. Clean the smoke channel.  
9. Change the pressure switch.  
10. Check the motor and change if needed. |
| It worked for a couple of minutes but then it turned off. | 1. The ignition phase is not over.  
2. Check if there is an electricity interruption.  
3. The smoke channel is clogged.  
4. Interference of failure of the pressure switch.  
5. The spark plug is damaged. | 1. Try igniting again.  
2. See last instruction.  
3. The smoke channel is clogged.  
4. Check or change the probe.  
5. Check or change the spark plug. |
| Wooden granules are settling in the combustion chamber. The glass on the door is dirty and the flame is weak. | 1. Lack of air for combustion.  
2. Wet or inadequate wooden granules.  
3. The smoke vacuum system motor is defective. | 1. Clean the combustion chamber and check if all the openings are clear. Do the standard cleaning of the combustion chamber and the smoke channel. Check if air flow is clogged. Check the gaskets on the door.  
2. Change the type of the wooden granules.  
3. Check the motor and change if needed. |
| The smoke vacuum motor is defective. | 1. The stove is not receiving the electricity.  
2. The motor is defective.  
3. Motherboard is defective.  
4. The control panel is defective. | 1. Check the main power supply and resistance to melting.  
2. Check the motor and condenser; change if needed.  
3. Change the electronic card.  
4. Change the control panel. |
| In automatic mode the stove works at maximum capacity all the time. | 1. The thermostat is programmed to the maximum position.  
2. The thermostat for outside air always checks the cool air.  
3. The probe that checks the temperature is defective.  
4. The control panel is defective or not working. | 1. Set the thermostat temperature again.  
2. Change the probe position.  
3. Check the probe and change if needed.  
4. Check the control panel and change if needed. |
| The stove does not turn on | 1. Check if there is an electricity interruption.  
2. The wooden granules probe is blocked.  
3. The pressure switch is not working (says it is blocked).  
4. The smoke vacuum or smoke supply channel is clogged. | 1. Make sure the plug is in and check if the main switch is in I position.  
2. Unblock the probe by checking the thermostat in the back. If it blocks again change the thermostat.  
3. Change the pressure switch.  
4. Clean the smoke channel. |

Table 8.

21.0. INFORMATION ON DISPOSING (THROWING AWAY) AND DISMANTLING (PULLING APART) OF THE STOVE

Dismantling and throwing away, or disposing of an old used stove is the sole responsibility of the owner.

The owner of the stove must abide by the regulations in his/her country related to the safety and environment protection. Dismantling and disposing of the stove may be left to a third party to do if the third party is a company authorized to collect and dispose of such materials.

**NOTICE:** In all cases you must abide by the applicable regulations of the country where the stove is installed regarding disposal of such materials (things) and, if necessary, report the disposal of such items.

**ATTENTION**

Dismantling the stove must be done only when the chamber of the stove is not working and when the stove is unplugged from power (no power supply).

- pull out all electric parts,
- throw away the batteries and electronic cards of the remote control in the proper garbage cans in accordance with the standards.
- separate the batteries you are keeping from the electric cards,
- dismantle the stove with the help from an authorized company
ATTENTION
Disposing of the stove in public places poses a serious risk for people and animals. In such cases it is always the responsibility of the owner if a person or an animal gets hurt.

When the stove is dismantled, this manual and all other documents related to the stove must be destroyed.

22.0. THE DURATION OF GUARANTEED SERVICE

By this we mean the time in which we guarantee service, accessories, and spare parts, starting from the date of purchase of the appliances.
The time of the guaranteed service is in accordance with the legislation.
In case of a change of the model and design of the appliance, the deadline for replacing the parts for which the design has been changed is within the legal deadline.
After this period the affected parts are provided in the new designs.

22.1. WARRANTY TERMS AND CONDITIONS

Product warranty is valid within the legally defined deadline.

The warranty does not apply to the glass or to the physical damage caused after purchase.

THE MANUFACTURER RESERVES ALL RIGHTS TO CHANGES.
The appliance will, within the warranty period, only function correctly when used in accordance with the instructions for connection and use.

The warranty ceases to be valid if it is determined that:
- Connecting the product or repair was performed by unauthorized persons, or if they built in counterfeit parts,
- If the appliance is not properly used in accordance with this instructions manual,
- If during use there was mechanical damage to the appliance,
- If the fault repair was done by unauthorized persons,
- If the appliance was used for commercial purposes,
- If the damage occurred during transportation after selling the appliance,
- If the failure was due to improper installation, improper maintenance, or mechanical damage caused by the customer,
- If the malfunction was due to too much or too low voltage as well as due to force majeure.

Malfunctions of the appliance can be removed outside the warranty period with original spare parts that we also give a warranty for under the same terms and conditions.

This warranty does not exclude or affect the rights of consumers in connection with the goods in accordance with legal provisions. If the delivered product does not match the contract, the consumer has the right to require the seller to fix this by repairing or replacing the product in accordance with legislation that is in effect.
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