technopel

Compact Pellet Boiler
Installation and User Manual

ÜNLÜSOY
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CONTENTS

This manual covers following models:

TECHNOPEL 15-24-36-48

Please contact your local Authorized Technical Service for Commissioning, Start of the Warranty Period and Failure Report.
or
Please call +90 444 35 32 for the Call Center.

ÜNMAK After Sales Department

INTRODUCTION

Thank you so much for choosing the Ünmak brand Technopel Compact Pellet Boiler. Please carefully read the manual before installation for comfortable, long-lasting, high efficiency, and economic use.

Do not touch any part of the boiler except for operation, adjustment, and maintenance purposes that specified in the manual.

Installation, maintenance, and service of the boiler must be done by a professional authorized technical service.

This manual and regulations should be considered for the installation of the boiler, the selection of the correct place for the installation, the plumbing system installation, and the design of the chimney.

ÜNMAK Pellet boilers are high-efficiency, steel-welded hot water boilers and have been designed to burn only wood pellets. These boilers are only used for heating systems, they are not suitable for direct domestic water heating. However, it can supply domestic hot water with a boiler or heat exchanger. The energy requirement for domestic water will be supplied from boiler energy.

ÜNMAK Pellet boilers transform the energy of the fuel inside the hopper from chemical to heat energy and supply to the liquid of central heating system.

The powdered fuels will pass through the combustion chamber with the fume extractor. Efficient combustion is not seen in this type of fuel. The powdered fuel can cause the auger to clog due to more moisture in the fuel. Depending on the heating values of the fuels, the heat given to the water from the boiler may exceed the declared values.

ATTENTION
Please read this installation and user manual carefully. Please keep the warranty certificate until the end of the product life.

SAFETY

Warning Risk Level

DANGEROUS
A hazardous situation is imminent danger and can result in a serious injury or death if precautions are not taken. It is necessary to follow the instructions.

WARNING
If precautions are not taken, dangerous situations can occur and result in serious injury or death. Please work very carefully.

ALERT
A dangerous situation may occur and if precautions are not taken, minor injury or damage of goods can happen.

WARNING

Please avoid any crush injuries to hands and feet during transportation, installation, and assembly.

WARNING

There is a risk of personal injury and property damage during installation and assembly by untrained personnel.
During installation and assembly:

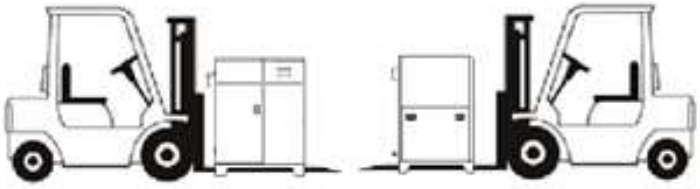
- Please follow the rules and information of manual
- Only trained person should be allowed for installation and assembly

ALERT

Please wear proper shoes, safety gloves, and work clothes.

SHIPPING AND HANDLING

ÜNMAK Pellet boilers are manufactured in thick steel sheets and produced as welding. All boilers are individually packed. Accessories such as circulation pump, fume extractor, closed expansion tank, and safety valves are sent with the boiler.



Safe Handling

Due to the heavy weight of the product, special care should be taken during handling to the installation place. The net weight of each product is already indicated in the technical specifications table. Therefore, the equipment that has sufficient capacity for the lift action should be used during handling.

In order not to damage the outer plates of the boiler during transportation; transport equipment such as forklifts and pallet trucks can be used.

The center of gravity of the Technopel series boilers is not in the middle and close to the left (in front view). Please be careful in handling process.

Carrying the ropes over the boiler plate by knotting can cause problems in the center of gravity. Ropes may damage the top plate of the product.

WARNING

Please do not use sharp and cutting tools to avoid damaging the pellet boiler while unpacking

WARNING

Please avoid any crush injuries to hands and feet during transportation, installation, and assembly.

SELECTION OF INSTALLATION PLACE

Installation

The installation place of the product must have sufficient free space for assembly, maintenance and operation of the boiler.

The gearbox and the burner (to which the spiral is connected) must be placed at a sufficient distance from the wall for service requirements. Please follow the instructions of "Dimensions of Installation Place" in that stage.

In addition, there should be sufficient fresh air circulation, the chimney design model should meet the stack draught requirements. The chimney construction criteria and relevant regulations in this manual must be followed. The pellet boiler should never be installed in open areas, balconies, living areas (kitchen, living room, bathroom, bedroom), or in places where explosive and easily flammable materials are present.

The boiler room door must not open directly to the escape ladder or the general use ladder. It should open to safeway hall. Doors opening from the boiler room to the building must have at least 10 cm height from the floor. If the boiler room can be illuminated naturally, please make sure that the lighting openings do not overlap with other windows of the building. System that does not dazzle but illuminates the apartment well should be installed when there is no natural illumination. Boiler room main switch and panels will be placed around the entrance door and should be of leakproof type.

There must be at least one 6 kg multiple purposes dry chemical powder type fire extinguisher in the boiler room. The rupture surface should be designed if natural gas or liquid fuel boilers use in the same boiler room.

The area should be connected directly to the outdoors and have vents that allow fresh air to enter. One of the grates should be 40 cm below the ceiling of the boiler room and the other 50 cm above the floor. These grids should always be open. The lower part should be at least 40x40 cm and the upper part should be at least 30x30 cm. Pets should not be fed in the central heating area (boiler room), they may be affected by smoke. Food and beverages should not be stored in this area.

All electrical and water systems must be installed by the plumbers of authorized technical services. Installation must be done by the plumbers in order to comply with all legal and technical regulations.

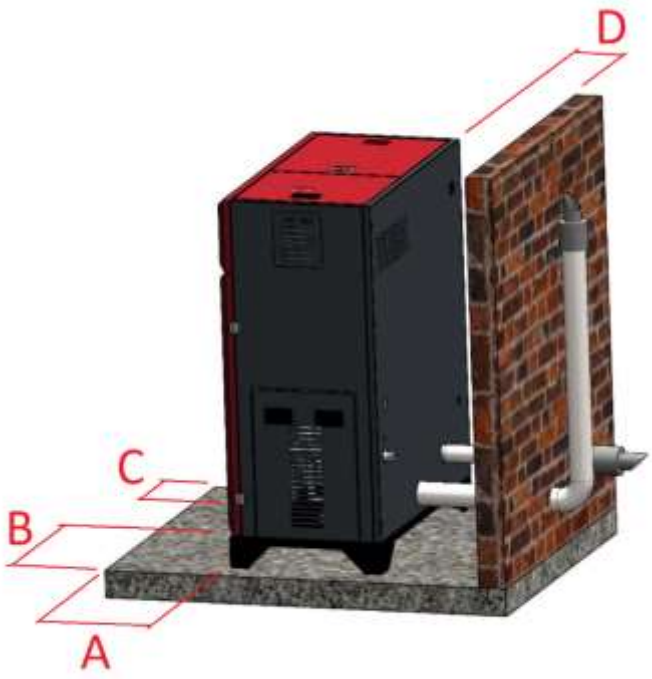
The fuels that burn in the boiler should be kept at a distance of at least 80 cm away from the boiler. It is recommended to store in a different room.

DANGEROUS
It is dangerous to store flammable and easily ignitable materials in the boiler room.

Dimensions of Installation Places

Boilers should be installed on a concrete base at a height of 10 cm from the ground to protect water from moisture and fuel from ash dust. The concrete base avoids the fume extractor's suction of ash dust and fuel on the floor. Laying tiles makes cleaning easier.

The boiler room should be sized to ensure minimum dimensions around the boiler as shown in the figure below. It is necessary to consider the distance to add the bunker when the boiler is placed. The burner under the bunker should be easily removed and able to work comfortably.



A: At least 80 cm is required for comfortable use of the cleaning arm and technical service actions;
B: At least 100 cm is required for assembly and disassembly of the burner equipment;
C: At least 80 cm is required for chimney connection and technical service actions;
D: The dimensions of the boiler type should be taken into account so that the front cover can be easily opened and used.

If the above dimensions are followed, the legal requirement for a minimum 8 m^3 volume is met.

	A (cm)	B (cm)	C (cm)	D (cm)
Technopel 15	100	70	50	40
Technopel 24	100	70	50	40
Technopel 36	100	70	50	40
Technopel 48	100	70	50	40

DANGEROUS

There should be no defective or suspicious electrical lines in the boiler room.
The 230 V electrical connection of the control panel should be connected to the mains via an automatic fuse (W automat).

SAFETY PRECAUTIONS

The boiler must be connected to a chimney in accordance with the features specified in the manual and the relevant regulations. Chimney should provide required stack draught values of the boiler. The boiler should not operate without a flue connection and without an adequate stack draught. Faulty electrical cables in the place of the installed boiler must be removed.

In the case of boiler replacement in boiler rooms, the former boiler must be disassembled or chimney connection must be cut off and the cut point must be isolated. It should not connect more than one boiler to the same chimney.

Chimney of Technopel Pellet Boilers is individually used as well. The chimney and fresh air suction line can be taken out from the back of the boiler room. The flue cap must put to the outlet section of the chimney. It can be made of metal or heat-resistant material.

Please do not overload the boiler, do not open the boiler door, and also don't feed pellets into the combustion chamber. Gearbox operating and stopping period should be set into the system such as a program. These settings depend on many parameters such as the boiler flue characteristics (stack draught), working environment, thermal comfort requirement, and isolation.

All electrical and water systems must be installed by the plumbers of authorized technical services. Installation must be done by the plumbers in order to comply with all legal and technical regulations.

DANGEROUS

This product must connect to the mains with the groundling process.

DANGEROUS

The electrical installation should be done by the technician in compliance with all legal and technical regulations, according to the items in the manual.

ALERT

Never disconnect the power supply while the boiler is operating.

Cold water should not be added directly to the overheated boiler for any cooling purpose. This can cause noise, overheating voltage, and indirect permanent damage.

Water should not be drained in the pipeline unless there is a risk of freezing or maintenance purposes. System design should ensure that the ratio between the plumbing water flow rate&boiler capacity, and the 20 °C difference between boiler inlet-outlet water temperatures are not exceeded. The water level should be checked regularly and leakage should be eliminated in order to minimize water loss.

Because adding excessive water to the system causes accumulated limescale on the water part of the boiler. This may cause partial overheating and damage to the boiler, as well.

In case the exhaust pipe or the fresh air opened to the outside, the ends of the pipes must be covered with a flue cap. A flue cap that avoids rain should be used for chimney pipe. If both flue and fresh air pipes are horizontal, distances between two pipes should be at least 1 meter in order to not draw stack gases.

ALERT
The fuel tank must be added before the fuel runs out.

ALERT
The fuel tank cover must be kept closed.

WARNING
The cold water should not be directly added to the overheated boiler for any reason of cooling purposes.

ELECTRICAL CONNECTION

ÜNMAK Technopel Series Pellet Boilers requires 230 V~50 Hz electricity supply. The regulator should be used in the place that <10 % or >10 % of the mains voltage. All wiring and additional grounding outside the boiler must comply with local electrical wiring regulations. The heating system (room thermostat connection, frost protection thermostat, etc…) must be proper to use in mains voltage.

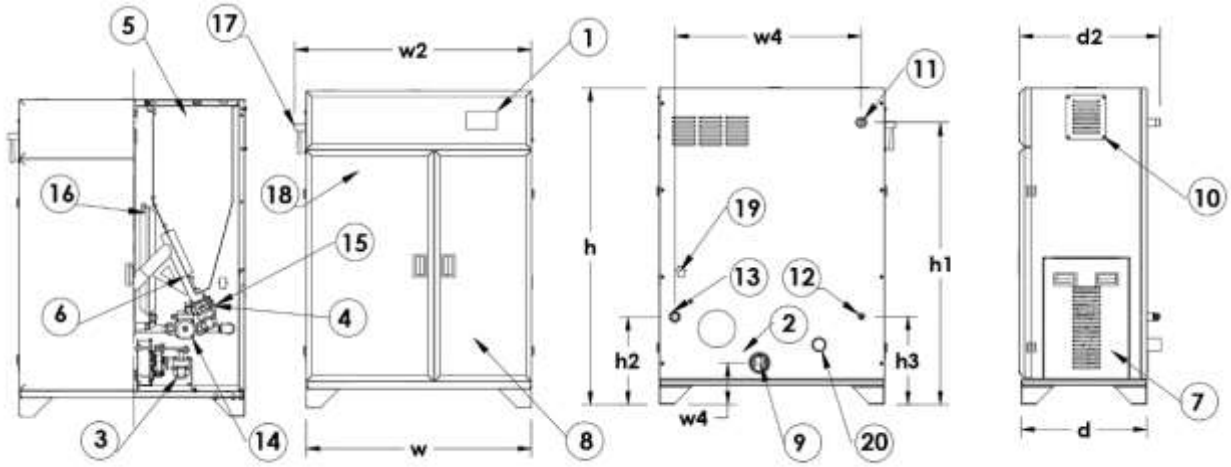
The control cabin must be connected to a wall panel with proper grounding equipment. All electrical connections should be made by authorized technical service personnel in accordance with local regulations.

The grounding installation is different from column assembly and must be done separately for each boiler room. Grounding installation should be as follows:

a) 0.5 m 2, 2 mm. thickness copper plate,
b) 0.5 m 2, 3 mm. thickness hot dipped galvanized or
c) Solid electrode copper bar

Electrode copper bar should be at least 1,5 m diameter Ø16 mm or lower than Ø20 mm at least 1,25 m diameter and the ground resistance of the electrode bar should be below the 20 Q limits. (Neutral-Ground voltage ≤3V)

TECHNICAL SPECIFICATIONS



1. Control Panel
2. Fume Extractor (Suction Fan)
3. Cleaning Gearbox
4. Feeding Gearbox
5. Fuel Hopper (Bunker)
6. Auger
7. Maintenance Door
8. Front Door
9. Flue
10. Additional Hopper Connection Flange
11. Central Heating Flow Line
12. Filling-Discharging Line
13. Central Heating Return Line
14. Circulation Pump
15. Safety Valve
16. Closed Expansion Tank
17. Cleaning Arm
18. Manometer
19. On/Off Control
20. Air Suction Pipe

DANGEROUS

This product must be connected to the mains via a ground line.

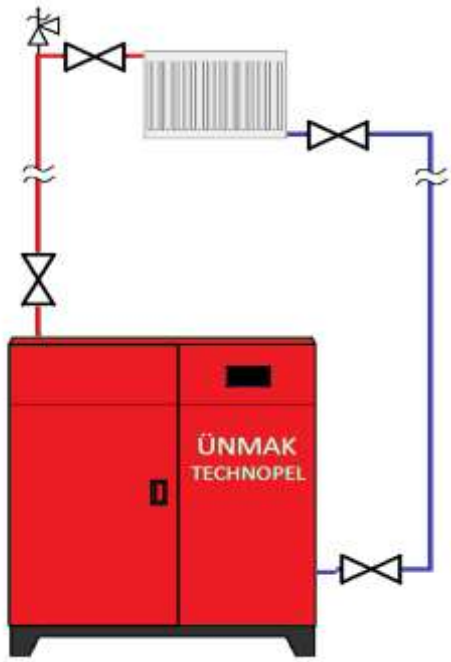
ALERT

The boiler should not be installed indoors and in living spaces.

It is necessary to control the water pressure value of the manometer (inside the left front door) while adding water to the boiler. It will be sufficient to adjust the pressure to 1 bar before ignition. The pressure will increase as the boiler heats up. The safety valve will open when the pressure is 3 bar and will close after the pressure drop. The discharge of the safety valve should be connect to drain down via hose pipe.

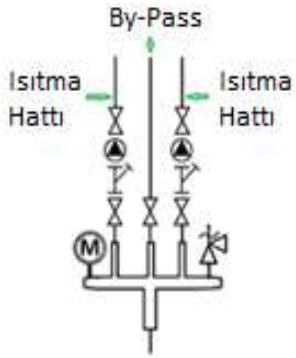
Limit or safety thermostat may not work in overheat boiler temperature (90 °C). Please turn and remove the black plug under the fuel tank (bunker) on the right front cover when the boiler cools down, then push the red pin. If not able to push the pin, it means the boiler is still hot. It is possible to push after the boiler cools down.

INSTALLATION SYSTEM RULES

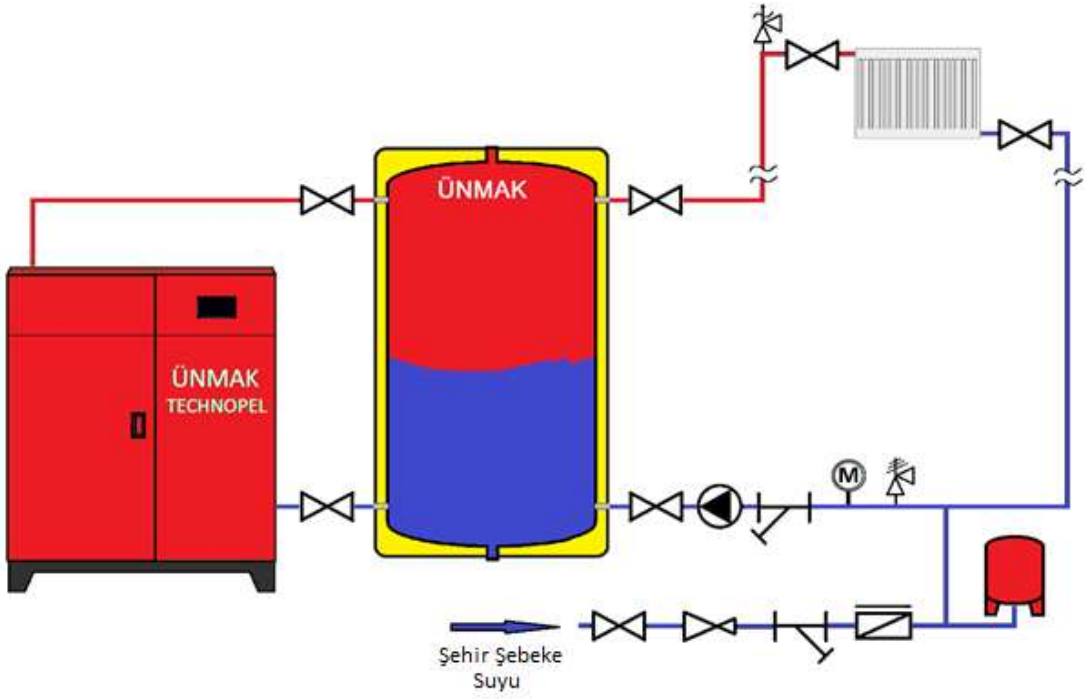


The equipment such as circulation pump, expansion tank, the safety valve is included with the pellet boiler, and no need to add on to the installation when the hydronic connection of the boiler is completed. It can be easily installed as the wiring diagram shows.

It is recommended to install an additional pump for installations with collectors (usually in large installations). The collector should also have a backup pump and a by-pass line.

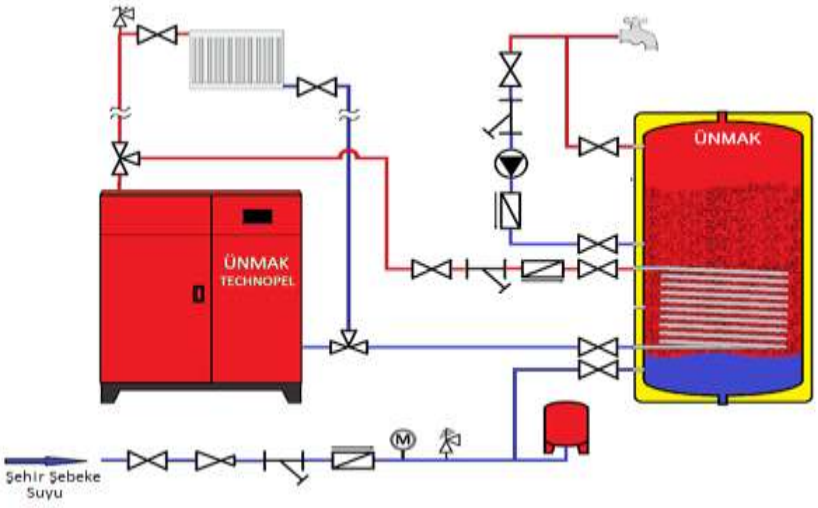


Installation with Accumulation Tank



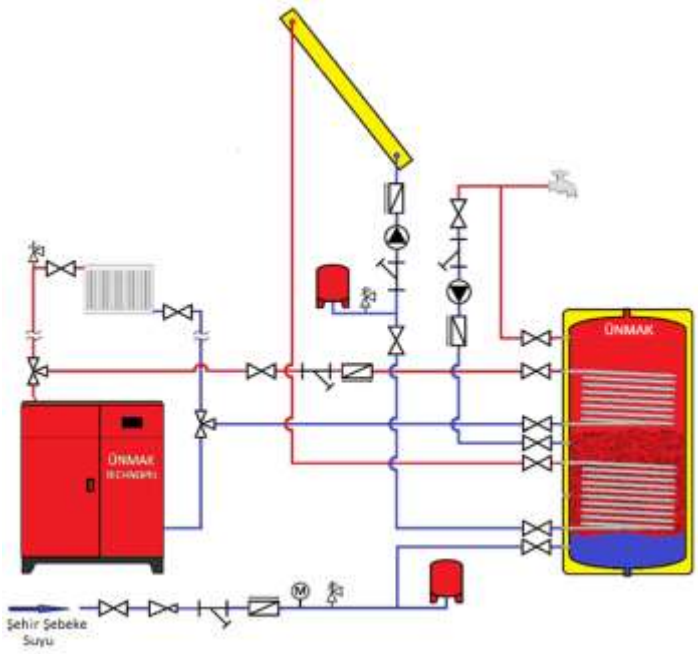
Installation with Single Serpentine Hot Water Storage Tank

Central Heating Flow Line (hot water) should be connected to the upper connection point of the boiler and central heating return line (warm water) should be connected to lower connection point. Pressure reducer, safety valve, and expansion tank must install to mains water.



Installation with Double Serpentine Hot Water Storage Tank

There are two different types of coil in double serpentine hot water storage tank. If we consider connecting a continuously operate energy source (usually solar energy, geothermal, etc.) to the lower serpentine, the pellet boiler can be connected to the upper serpentine. Pressure reducer, safety valve, and expansion tank must install to mains water.



	Pump		Valve		3 Way Valve
	Manometer		Filter		Checkvalve
	Safety Valve		Automatic Air Purger		Pressure Reducer

Warning Against Corrosion of Installation

Please make sure that ÜNMAK boilers are highly resistant to corrosion. However, all ferrous components at the heating installation (including pipes and panel radiators) should be protected against corrosion. Oxygen in the installation water causes corrosion on iron surfaces as a result of oxidation and this situation may cause material loss.

The accumulated air during the first filling of the installation must be evacuated. In general, if the necessary precautions are taken after the first filling, no damage will occur because of the oxygen in the water. Oxidation occurs mainly due to oxygen entering the heating water during operation. Leakage in the system causes the addition of oxygen to the central heating water. For this reason, the minimum water pressure in the closed expansion tank system should be higher than the atmospheric pressure. The working pressure should be periodically checked.

Warning Against Freezing

Entire heating system must be isolated. The external parts must be insulated more than the internal parts of the installation.

Precautions for New Installations

The design and size of the system must be done correctly to minimize water addition. No material used in the installation should be the gas transmissions. A synthetic or max. a 50-micron metal filter must put to the additional water line. Installation system pressure should be higher than atmospheric pressure in closed expansion tank system.

WARNING
Fresh water should be added to the installation only if the installation temperature is cold.

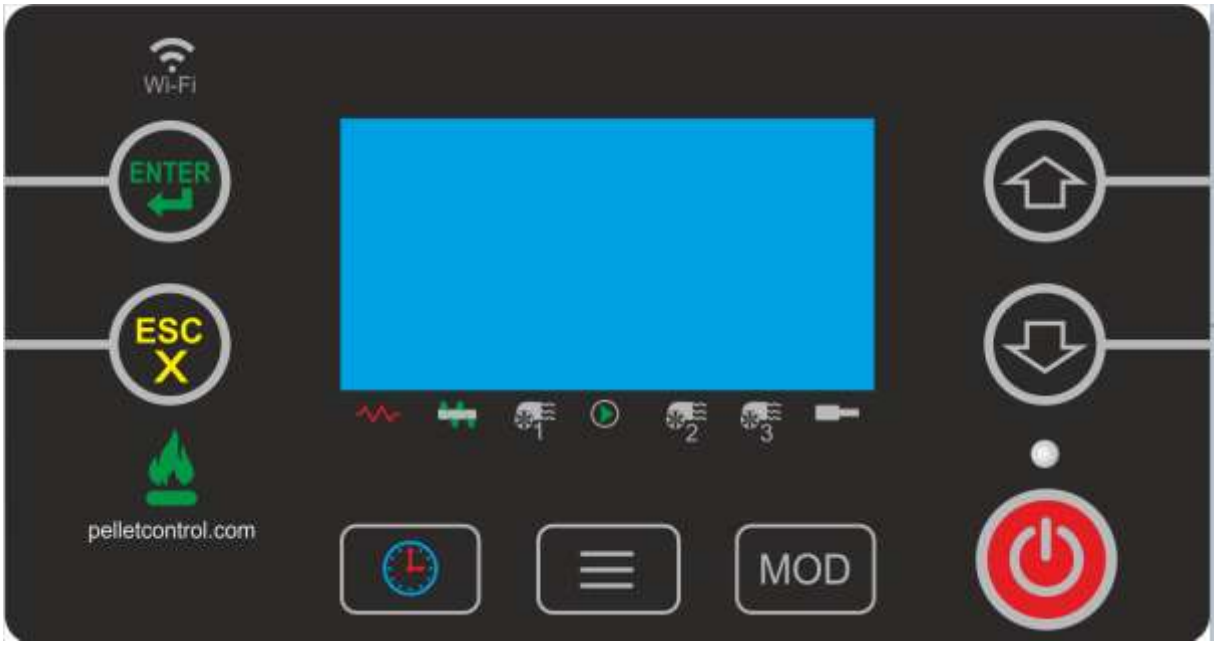
Precautions about Central Heating System connected to the Old Installations

A protective layer (black magnetite) forms on metal surfaces due to water contact in a long-time-used heating system. The clean surfaces of the boiler will be the first place where corrosion begins if a new boiler is installed to the old system. For this reason, please follow below items for central heating system when a new boiler connected to the old installation system:

1. Please carefully wash the old installations for remove the dirt or residue before connect the boiler
2. A manual air separator should put on the system

ALERT
Pipeline must wash few times before assembling the new boiler to the old installation system. The old chimney layout should be clean before installation.

CONTROL BOARD AND USER INTERFACE



	ON/OFF button	Press the on/off button for 5 seconds in order to open the system. Press only one time for the close system. The system will shut down after the closure process complete.
	Enter	The set temperature of the boiler water will be displayed when the Enter button is pressed.
	Escape	This button is used for cancelling the set value without save or escape from the menu.
	Arrow buttons	Arrow buttons are used to increase or decrease the numbers or display the functions of the control board.
	Timer	It is used to turn on and turn off the boiler with a time setting. This button is used according to the opening and closure procedures.
	Menu	It is used to select functions of the menu.
	Mode Selection	It is used to pass between manual and automatic modes.

REMARKS OF USER INTERFACE

	Pre-purge
I0.1	Gearbox feeding time (0.0-40.0 s)
I0.2	Gearbox pending time (0.0-2000 s)
I0.3	Fan speed (600-3000 rpm)
I0.4	Starting period (0-600 sn)
I0.5	Ash cleaning feeding time (0-40 s)
I0.6	Ash cleaning pending time (0-40 s)

	Start-up
I1.1	Gearbox feeding time (0.0-40.0 s)
I1.2	Gearbox pending time (0.0-2000 s)
I1.3	Fan speed (600-3000 rpm)
I1.4	Starting period (0-600 s)
I1.5	Ash cleaning feeding time (0-40 s)
I1.6	Ash cleaning pending time (0-40 s)

	Ignition 1
I2.1	Gearbox feeding time (0.0-40.0 s)
I2.2	Gearbox pending time (0.0-2000 s)
I2.3	Fan speed (600-3000 rpm)
I2.4	Chimney Temperature (0-100°C)
I2.5	Ingition 1 time (0-600 s)
I2.6	Ash cleaning feeding time (0-40 s)
I2.7	Ash cleaning pending time (0-40 s)
I2.8	Ignition Closure Temperature (0-100°C)

	Ignition 2
I3.1	Gearbox feeding time (1.0-40.0 s)
I3.2	Gearbox pending time (0.0-2000 s)
I3.3	Fan speed (600-3000 rpm)
I3.4	Ingition 2 time (0-600 s)
I3.5	Ash cleaning feeding time (0-40 s)
I3.6	Ash cleaning pending time (0-40 s)
I3.7	(0) Ignition open (1) Ignition close

	Power 1
P1.1	Gearbox feeding time (1.0-40.0 s)
P1.2	Gearbox pending time (0.0-2000 s)
P1.3	Fan speed (600-3000 rpm)
P1.4	Transition time (0-600 s)

	Power 2
P2.1	Gearbox feeding time (1.0-40.0 s)
P2.2	Gearbox pending time (0.0-2000 s)
P2.3	Fan speed (600-3000 rpm)
P2.4	Transition time (0-600 s)

	Power 3
P3.1	Gearbox feeding time (1.0-40.0 s)
P3.2	Gearbox pending time (0.0-2000 s)
P3.3	Fan speed (600-3000 rpm)
P3.4	Transition time (0-600 s)

	Power 4
P4.1	Gearbox feeding time (1.0-40.0 s)
P4.2	Gearbox pending time (0.0-2000 s)
P4.3	Fan speed (600-3000 rpm)
P4.4	Transition time (0-600 s)

	Power 5
P5.1	Gearbox feeding time (1.0-40.0 s)
P5.2	Gearbox pending time (0.0-2000 s)
P5.3	Fan speed (600-3000 rpm)
P5.4	Transition time (0-600 s)

	Power 6
P6.1	Gearbox feeding time (1.0-40.0 s)
P6.2	Gearbox pending time (0.0-2000 s)
P6.3	Fan speed (600-3000 rpm)
P6.4	Transition time (0-600 s)

	General Parameters
P7.1	Ash blowing time (0-250 s)
P7.2	Ash blowing pending time (0-1000 s)
P7.3	Fan speed (0-3000 rpm)
P7.4	Ash cleaning feeding time (0-40 s)
P7.5	Ash cleaning pending time (0-40 s)
P7.6	Transition time between power mode (0.5-10.0)

	Power 0 (Standby Mode)
P8.1	Reductor feeding time (1.0-40.0 s)
P8.2	Reductor pending time (0.0-2000 s)
P8.3	Fan speed (600-3000 rpm)

	Closure
S1.1	Fan speed (0-3000 rpm)
S1.2	Closure time (0-20000 s)
S1.3	(0) Ash cleaning close (1) Ash cleaning open
S1.4	Starting time from closure to feeding (0-20000 s)
S1.5	Feeding time in closure (0-50 s)

	Cooling
S2.1	Fan speed (0-3000 rpm)
S2.2	Cooling time 2 (0-20000 s)
S2.3	Cooling temperature (0-100 °C)
S2.4	Starting temperature of cooling (0-10 °C)
S2.5	(0) Ash cleaning closed (1) Ash cleaning open

	Cooling&Closure Common Parameters
S3.1	Ash cleaning feeding time (0-40 s)
S3.2	Ash cleaning pending time (0-40 s)

	Boiler Type
V1.1	Initial heating power drop to 0 differential temperature (0-5 °C)
V1.2	Fan type (0) Condensator (1) Shaded-pole

	Fan Encoder Selection
V2.7	Fan encoder selection (0) Encoder available (1) Encoder not available

	Channel Cleanning Times
V3.1	Cleaning operation hours 1 (0-23 hours)
V3.2	Cleanning feeding time 1 (0-250 s)
V3.3	Cleaning operation hours 2 (0-23 hours)
V3.4	Cleaning feeding time 2 (0-250 sn)
V3.5	Cleaning operation attempts (0-5)

	Circulation Pump Operation Times
V4.1	Pump operation temperature (0-100 °C)
V4.2	Pump closure temperature (0-100 °C)
V4.3	Feeding time in Pump temperature rise (0-255 s)
V4.4	Pending time in Pump temperature rise (0-255 s)
V4.7	Power 0 closure times (standby mode) (0-20 min) – (0: cancel)

	Various Parameters 1
V5.1	Direct closure temperature with stop button (0-99°C)
V5.2	Adjustable minimum boiler temperature (40-50 °C)
V5.3	Maximum chimney temperature (0-400 °C)
V5.4	Starting temperature of no fuel check (0 - 100°C)
V5.5	No fuel temperature (0-100 °C)
V5.7	Resumption (0-20 min)
V5.8	Flame out sensor temperature in "Power" parameters (40-150 °C) – (150: cancel)

	Various Parameters 2
V6.1	Fuel Level Sensor failure value (0-50)
V6.2	Fuel Level Sensor failure time (0-250 s)
V6.3	Fuel Hopper protection time (0-250 s)
V6.4	Fuel Hopper protection fuel pending time (0-50 min)
V6.5	Fuel Hopper protection temperature (50-90 °C)

F1, F2, F3, F4, and F5 values indicate wood pellet types in the control board. The lowest heat output values of pellet types are given in the below following table. Please select the correct values of the pellet type according to your fuel and then press Enter.

"Lowest Heat Output Value" written in the fuel package can match any of the F values. For example; please mark F1 when the fuel heat output value is 3500 kcal/h.kg and press Enter button. You can reduce to F3 level if you are not satisfied with fuel quality while burning at F4 level.

F1	F2	F3	F4	F5
4,07 kW/kg	4,42 kW/kg	4,94 kW/kg	5,23 kW/kg	5,58 kW/kg
3500 kcal/h.kg	3800 kcal/h.kg	4250 kcal/h.kg	4500 kcal/h.kg	4800 kcal/h.kg

COMMISIONING

Press the ENTER button for 5 seconds in order to start the boiler.

Press the ENTER button 

and use the arrow buttons  to set the desired boiler temperature. After entering the desired value with the arrow buttons, press the ENTER 

button again and save the value. The boiler will start to work and pre-purge will be done during the set time. Follow these stages Start-up, Ignition 1, Ignition 2 modes, respectively.

Ignition may not start in initial operation after these modes completed. In the first stage, the ignition may not able to start due to an empty fuel feeding channel. Please press ESC button 

for 5 seconds when you see an error message to reset it. Boiler pass to Power 3 after ignition stages and follow Power 4,5 and 6 mode, respectively. The boiler continues to work until reaches to set temperature value.

It decreases and increases the excess power when it approaches the set temperature value. When it reaches the set temperature, Power 0 (Standby Mode) will start when it reaches the set value.

It is possible to select manual or automatic operation of the boiler by first press the MOD 

button and then select the arrow button  . If you select automatic operation, it goes starting from Power 3 to Power 6, respectively. Power drops down until Power 0 when it reachs to the set temperature value.

Power 6	Power 5	Power 4	Power 3	Power 2	Power 1
100%	80%	60%	50%	40%	30%

The power mode can be selected according to requested value for the boiler power effective use percentage, when you want to operate manually.

MAINTENANCE & CLEANING PROCESS

DANGEROUS

Regular maintenance is required by the authorized technical service for effective use of the boiler.

Regular Controls:

• Please always check water level. Water pressure of the manometer should be marked after first filling. the pressure rises when the water warms. For this reason, the marked water pressure level on the manometer should be checked when the water is cold. If the water pressure is below the static pressure or lower than the system setting, water must be added to the system while the boiler is cold. In order to protect the system and the boiler from corrosion, the feeding water should be softened according to the local settings. Please consider the below items during regular controls:

• Please check the front door is closed properly and replace the cover gaskets if necessary.

• Ensure that there is no gas leakage in the flue connection, if there is, it should be solved immediately.

• Please check the fan work properly. A periodically balanced fan may run noisy.

Cleaning:
Cleaning must be done when the boiler is cool down. The electrical connection should be cut off in the cleaning stage. Please consider the below items while cleaning the boiler:
• It is useful to clean the front cover of the boiler at the end of each burning period. It is recommended to use cleaning equipment supplied with the boiler, if necessary.
• The Control board should be protected from dust, moisture, and water.
• The sheet body part of the boiler can be cleaned, if necessary.

Maintenance:
We strongly recommend to contact our authorized technical service for boiler, plumbing, electrical connections, and chimney maintenance before each operating season. Never perform maintenance without the assistance of a specialist.

	**ALERT** Close main electrical supply
	**ALERT** Please work under the supervisor's control.

	**ALERT** Wear the safety gloves
	**ALERT** Wear the dust mask

	**WARNING** Possible finger and hand injuries due to automatic fan operation
	**WARNING** Possible finger and hand injuries due to automatic feeding gearbox

	**WARNING** Possible finger and hand injuries due to sharp sheet edge
	**WARNING** Possible injuries due to rotational tools

TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTION
Insufficient Heating	• Heat transfer surface may be covered by smoke • Poor quality fuel may be used • Pump may not work • Insufficient insulation of the living place • Not able to shift modes in the control board.	• Please clean the boiler surface. (boiler should not work) • Please change the fuel before loading, take a few quantities and try to adopt to the proper fuel type • Contact with authorized technical service, ensure the electrical plug connection to the main fuse • Increase the insulation of the place where the boiler is installed • Please switch to the automatic mode with using menu button
Unsatisfied Combustion of the Pellet Boiler	• Low combustion air	• Ensure the pump is working • Make sure that air suction pipe is not clogging

PROBLEM	POSSIBLE CAUSE	SOLUTION
Unsatisfied Combustion of the Pellet Boiler	• Flue draught may low	• Please carefully check the no holes and cracks on the chimney • Insulate the chimney
Excessive fuel consumption	• Poor quality fuel may be used • Insufficient insulation of the living place	• Please change the fuel • Increase the insulation of the living place
Not able to reach set temperature value	• Head part of the temperature sensor might not place inside socket	• Open the top cover of the boiler and change control board temperature sensor's head part
Partial heating of the radiator	• Entrapped air in radiator	• Remove the entrapped air from air vent of radiator • Please make sure automatic air vent plug is not tightened
Ignition failure	• The amount of fuel or dust may be too high at the first ignition • Fuel may comes late due to the empty of auger part • Fan may not work	• Sift out the dust on pellet • Reset and restart from the control panel • Contact the authorized technical service
Noisy sound of the boiler	• There may be trapped air inside the boiler when the first water is filled	• Fill the boiler with water from the lowest part
Boiler water temperature drops too high but the boiler is still not work	• Limit thermostat fuse may be tripped	• Please open front right door, then remove and turn reverse side the black plastic cover  • Press the red pin for activation of the limit thermostat
No power in control board	• Power plug may not be plugged in • Mains electricity may be cut off • Control panel fuse may be tripped	• Plug in the power plug • Try again when main electricity is comes on • Change the glass fuse of the control board

ALERT
Do not open the front cover, upper cover, and hopper cover and not add water to the boiler when the main electricity is cut off.

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