



KEPO
pellet boilers

Dear user,
Please read this manual carefully before installing and commissioning the boiler.

We wish you a warm and pleasant winter.
Kepo



Table of contents

Boiler specifications	3
Introduction; Installing the boiler on the central heating system	5
Safety	6
Necessary installation and commissioning requirements	7
Boiler dimensions and connections	9
Safety precautions	11
Installing the boiler on chimney systems	12
Responsibility of the installer/Keпо authorized technician	13
Connecting the boiler	14
Control panel	15
Display	17
Alarms	28
Information	29
Boiler cleaning and maintenance	30
Frequently asked questions	33
Electric connections	35
Hydraulic diagram of boiler connection	36
Warranty statement	37
Warranty card	39

Pellet boiler specification 1/2

		AC/MC 15	AC/MC 20	AC/MC 25	AC/MC 35
Weight	kg	218/205	255/248	280/272	416/410
Height	mm	1155	1280	1430	1600
Width	mm	600	665	665	765
Depth	mm	790	830	830	1050
Flue pipe diameter	mm	80	80	100	120
Draught	mbar	0,1	0,1	0,1	0,1
Pellet tank volume	l	67	103	125	200
Power consumption at start on pellet	W	420	420	420	420
Power consumption in operation	W	Min 58 Nominal 70	Min Nominal 100	Min 67 Nominal 114	Min Nominal 100
Stand By power	W	3	3	3	3
Nominal voltage	Vac	220-240	220-240	220-240	220-240
Nominal frequency	Hz	50	50	50	50
Water pipe diameter	"	1	1	1	5/4
Safety valve pipe diameter	"	1/2	1/2	1/2	1/2
Pump flow	l/h	1300	1300	1300	1300
Exhaust gas temperature at nominal heat output	°C	144,8	119	118,6	93
Exhaust gas temperature at minimum heat output	°C	78,2	63	68,5	55
Boiler water volume	l	42	53	72	98
Boiler power	kW	Min 4,5 Max 15	Min 5,79 Max 20	Min 7 Max 25	Min 8,7 Max 35
Pellet consumption	kg/h	Min 1,055 Max 3,52	Min 1,4 Max 4,5	Min 1,4 Max 5,46	Min 2,1 Max 8,6
Energy efficiency	%	Min 88,4 Nominal 89,2	Min 88,7 Nominal 92,5	Min 89,6 Nominal 91,6	Min 90,4 Nom. 91,91
Setting range for the temperature controller	°C	Min 60 Max 80	Min 60 Max 80	Min 60 Max 80	Min 60 Max 80
Boiler water pressure	bar	Min 0,6 Max 2,5	Min 0,6 Max 2,5	Min 0,6 Max 2,5	Min 0,6 Max 2,5
Heating appliance is running with or without using a fan		Yes	Yes	Yes	Yes
Heating appliance is working under over pr.		Yes	Yes	Yes	Yes

Pellet boiler specification 2/2

Exhaust mass flow at nominal heat output	Kg/s	0,0101	0,01514	0,0071	0,03141
Exhaust mass flow at minimum heat output	Kg/s	0,0049	0,00540	0,0144	0,00926
Emission of airborne noise					
Combustion period	h	6	6	6	6
Minimal return temperature at boiler return tapping	°C	50	50	50	50
Preferred pellet class	EN303-5	C1	C1	C1	C1
	EN plus	A1	A1	A1	A1
Boiler class	-	5	5	5	5
Efficiency mark	-	A ⁺	A ⁺	A ⁺	A ⁺

Kepo pellet boilers

Introduction

This manual is an integral part of the product. It is delivered together with the appliance even when the boiler is handed over to another user. In the event of damage or destruction, a new manual will be provided at your request by our customer service or a technician authorized by Kepo.

This boiler should be used only for the purpose for which it is intended by the manufacturer. The manufacturer has no contractual or non-contractual liability for damages to people or the environment resulting from poor installation, inappropriate handling or failure to follow the instructions listed in this manual.

Installing the boiler on the central heating system

Installation of the boiler and its accessories has to be carried out in line with all the regulations provided in this manual as well as the notes made by the manufacturer.

Installation should be done by authorized personnel that bear all responsibility for it, in accordance with the manual.

In case the boiler is not installed in compliance with all provided conditions, authorized technician cannot commission the boiler.

Proper boiler installation is essential for convenient boiler exploitation. Poor installation may result in poor boiler operation, emergency servicing, inability to perform regular servicing and high servicing costs.

To avoid this and enjoy the comfort of your heating to the fullest, please install the boiler in compliance with the instructions given in this manual.

Safety

- In the event of boiler damage, please contact a Kepo-authorized technician or the manufacturer.
- The boiler reaches high temperatures. Do not put objects on the boiler or at its front and sides.
- Pay particular attention to the front of the boiler where control glass is placed as touching it may cause injury and burns.
- Prolonged exposure to direct boiler heat may be harmful to humans, animals and plants, as well as to heat-sensitive objects.
- The boiler has vents for air circulation. Do not insert objects or your fingers in the vents as this may cause injury or damage the boiler.
- Pay particular attention to children!
- Do not use flammable liquids and gasses around the boiler.
- The boiler must have a separate inflow of fresh air.
- Kepo pellet boilers should be placed in boiler rooms only. They must not be installed in rooms where people live.
- Do not bring the boiler into contact with water as this may cause a short circuit of electrical components, boiler damage or fire.
- Do not spray the control glass with water or any other liquid as this may cause cracking of the glass and injury.
- Do not clean the control glass with agents containing alcohol or other substances that may cause burning or damage to the glass.
- The boiler is connected to 230V. It must be connected to the mains via the original cable supplied with it. Before connecting, check if your electrical installation meets the boiler connection requirements.
- In the event of any problem, failure or malfunctioning of the boiler, turn it off at the power switch at the back of the appliance, unplug the power cord and contact an authorized technician or the manufacturer.
- The boiler must not be maintained or handled by a person who is not familiar with this manual! Children and people with reduced psychophysical abilities must not handle the boiler.
- Do not try to solve problems on your own!
- The boiler must be handled by persons trained by authorized technicians only.
- **Children 8 years of age and older, persons with reduced physical, motor or mental abilities, persons with little or no experience, may use such appliances if they are supervised or given instructions regarding the safe use of the apparatus and the dangers presented. which result from it. Children should not play with such apparatus. Appliances must not be cleaned and subjected to child maintenance without proper supervision.**

Necessary installation and commissioning requirements

Before deciding to purchase our product, please study this manual carefully. Review your own situation and determine whether you meet the installation requirements.

In later exploitation, any departures may cause the following:

- High costs of emergency servicing
- Significantly shorter service life of the boiler
- Poor pellet combustion
- Increased pellet consumption

In case you have any further questions or you need small corrections in the dimensions of the boiler room, ventilation or flue gas exhaustion, please contact a Kepo technician or our customer service: **+ 381 31 783 927**.

If you meet these requirements, you provide yourself with an economical, safe and long-term use of our product.

1. Minimum clearance of the boiler sides to the walls

- Left side: 65cm
- Right side: 50cm
- Back side: 40cm
- Front side: 100cm
- Room height: 60cm clearance from the top of the boiler

This enables our technician to perform annual service or fix possible boiler malfunctions quickly. It also enables you to maintain the boiler and flue pipes smoothly.

If the minimum clearance is not provided, we will not be able to conduct any operations.

2. For proper operation, the boiler must be installed in a ventilated room

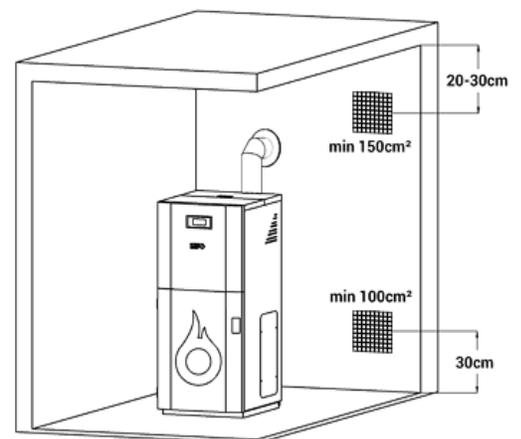
A fresh air vent must be made in the lower part of the room, 30cm above the floor, near the boiler, with a minimum size of 100cm².

A vent for dirty air (pellet and ash dust) must be made in the upper part of the room, 20-30cm below the ceiling, with a minimum size of 150cm².

Due to possible boiler congestion caused by irregular boiler and chimney maintenance, a certain amount of smoke may penetrate the room. **This makes the vent for dirty air indispensable.**

Kepo produces \varnothing 120mm pipes with decorative collars and meshed endings that can be installed as the air vent.

These vents have to be made properly in order to prevent any possible blockages.



3. To exhaust flue gasses, use only $\varnothing 100$ or $\varnothing 120$ flue pipes with silicone rubber bands

The maximum amount of flue pipes to connect the boiler to the chimney is as follows:

- Tee - 1 piece
- 1000mm or 500mm straight pipes – 3m maximum
- Elbow 90° - 1 to 2 pieces

In case two 90° elbows are used, the maximum straight flue pipe length is 2m.

Horizontally mounted flue pipes must not exceed 1m, with a mandatory 3-5% drop at the boiler.

At the end of flue pipes installation, there must be an insulated chimney.

The minimum chimney diameter is $\varnothing 130$.

4. Insulated chimney connected to the boiler must be cleaned prior to commissioning

The manufacturer is not liable for any malfunctions caused by the lack of chimney maintenance.

The minimum frequency for cleaning the chimney is once a year.

Small-sized, square-shaped chimneys interfere with regular boiler operation. A chimney connected to the boiler cannot be connected to any other device (e.g. another boiler, a furnace, a heater or other heating devices).

The minimum height of the external insulated chimney is 3m from the connection point of the flue pipes.

5. Supply voltage should be stable at 230V \pm 5% max

In case this requirement is not met and a periodic voltage drop or jump occurs, the manufacturer is not liable for any boiler malfunctions.

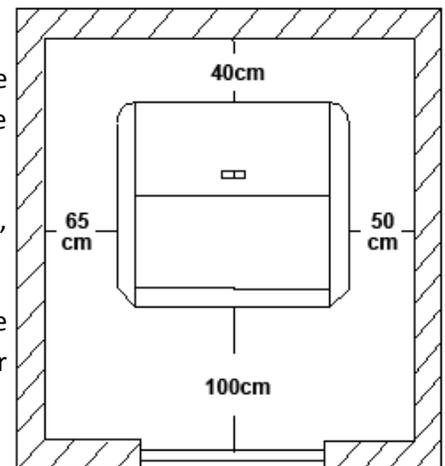
6. Proper boiler positioning

Once the boiler is installed, the levelling feet must be adjusted.

The minimum clearance of the boiler to non-combustible and poorly combustible materials must be 50cm (preferably even higher), whereas its minimum clearance to combustibles must be 100cm!

In case the flue pipes must pass through combustibles, such as wooden walls, they must be properly insulated.

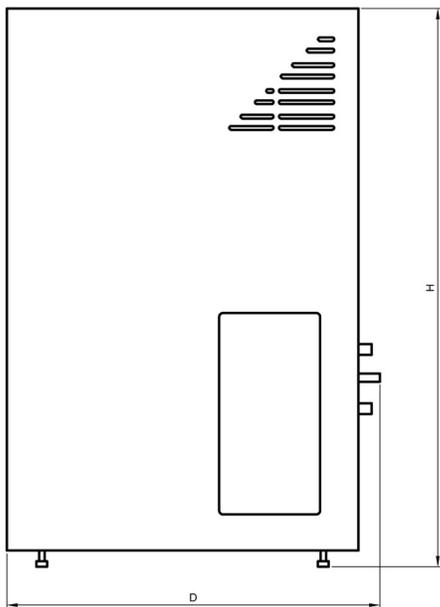
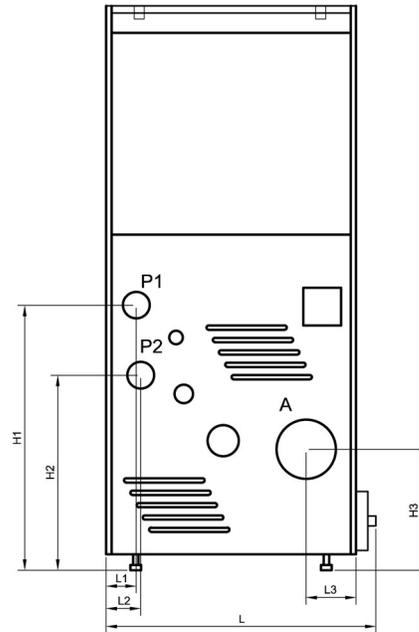
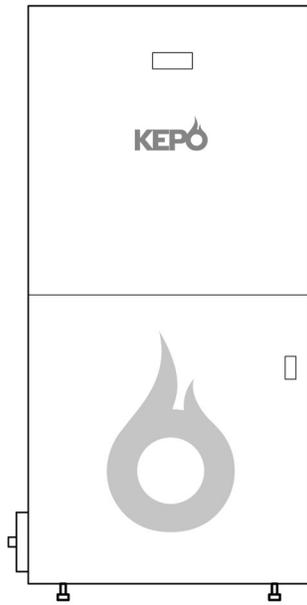
If the boiler is installed on a combustible floor, it is vital to make a non-flammable hearth pad with dimensions larger than those of the boiler (at least 20cm longer than the back and sides and at least 40cm longer than the front of the boiler).



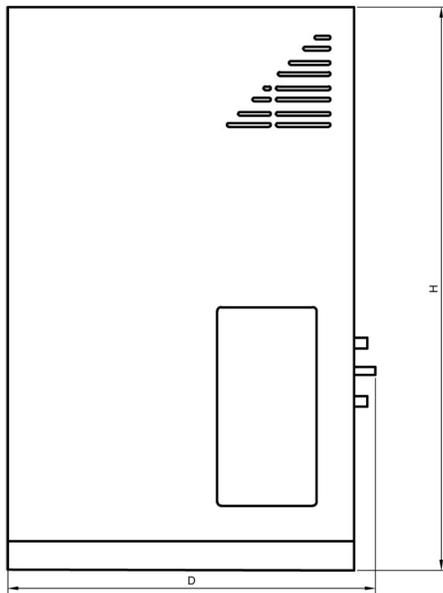
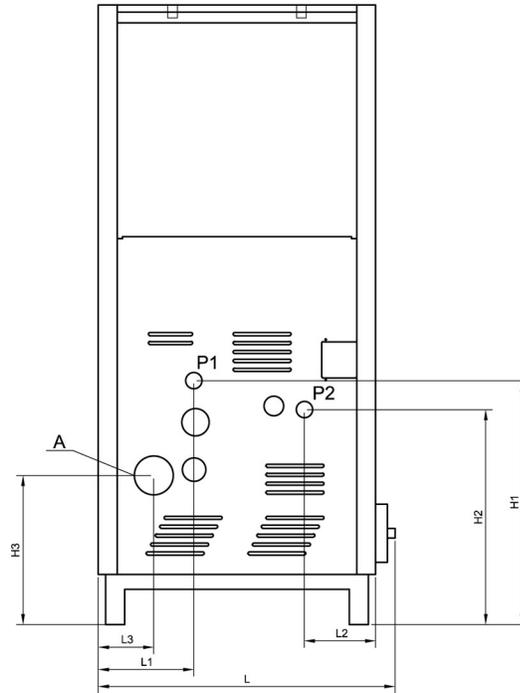
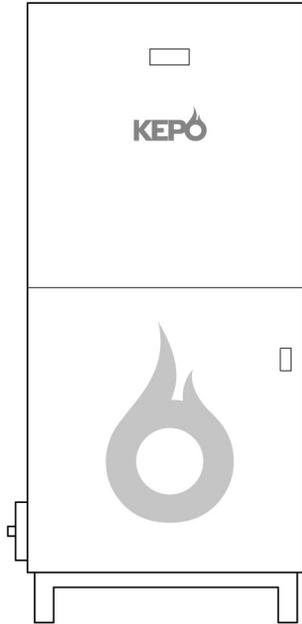
If any of the above conditions is not met, the boiler cannot be commissioned!

Dimensions and connections - AC/MC 15, AC/MC 20, AC/MC 25

Component	Unit	AC/MC 15	AC/MC 20	AC/MC 25
Exhaust pipe A	mm	Ø80	Ø80	Ø100
Safety valve 3bar	"	1/2	1/2	1/2
Starting line P1	"	1	1	1
Return line P2	"	1	1	1
L1	mm	115	90	90
L2	mm	130	130	130
L3	mm	155	155	155
H1	mm	565	640	640
H2	mm	355	420	420
H3	mm	280	280	280
L	mm	600	665	665
H	mm	1155	1280	1430
D	mm	790	830	830



Element	Jedinica	MC/AC 35
Izduvna cev A	mm	Ø120
Sigurnosni ventil 3bar	"	1/2
Polazni vod P1	"	5/4
Povratni vod P2	"	5/4
L1	mm	245
L2	mm	185
L3	mm	140
H1	mm	630
H2	mm	555
H3	mm	385
L	mm	765
H	mm	1600
D	mm	1050



Safety precautions

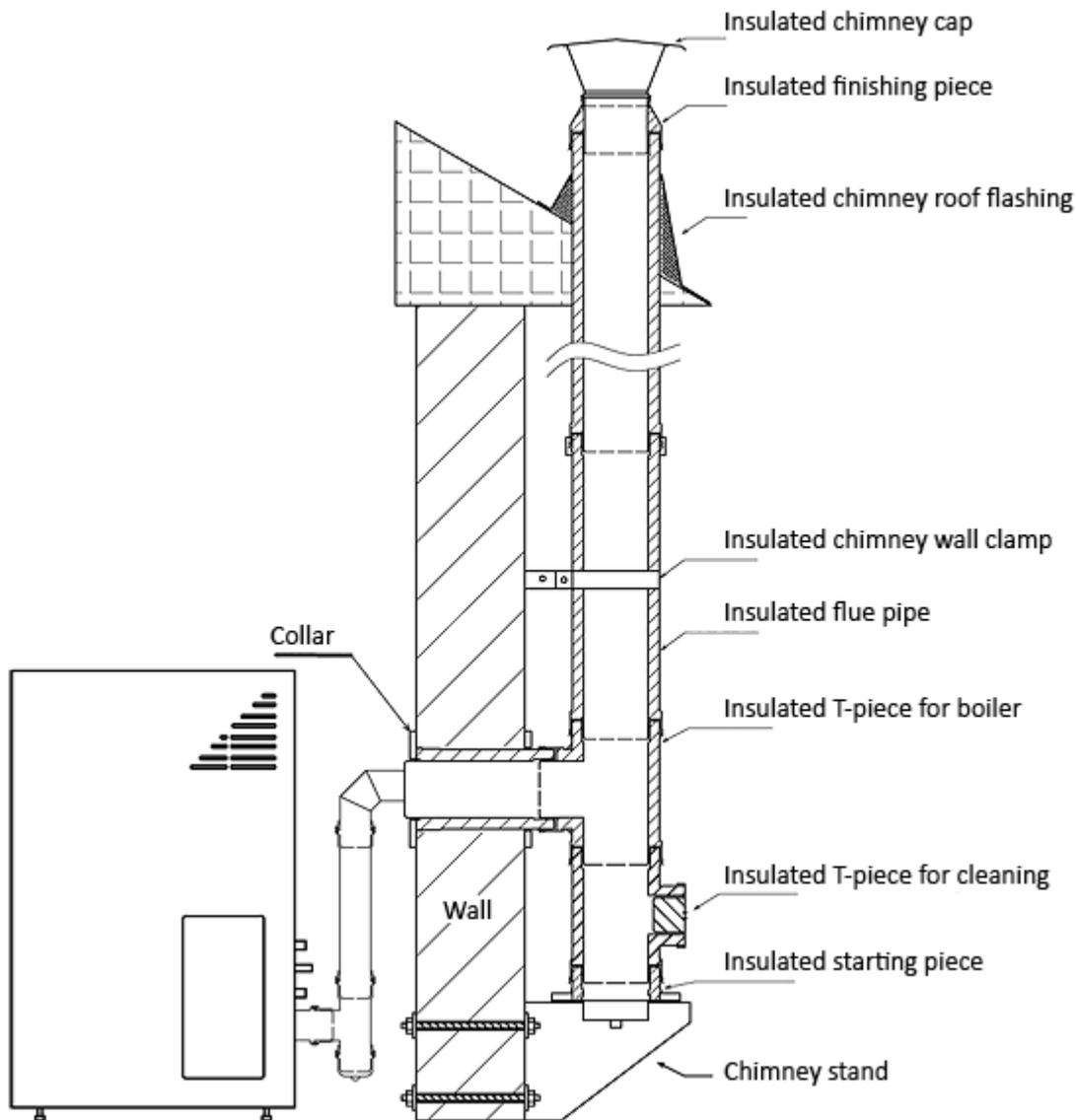
- In the event of boiler damage, please contact a Kepo-authorized technician or the manufacturer.
- The boiler reaches high temperatures. Do not put objects on the boiler or at its front and sides.
- Pay particular attention to the front of the boiler where control glass is placed as touching it may cause injury and burns.
- Prolonged exposure to direct boiler heat may be harmful to humans, animals and plants, as well as to heat-sensitive objects.
- The boiler has vents for air circulation. Do not insert objects or your fingers in the vents as this may cause injury or damage the boiler.
- Pay particular attention to children!
- Do not use flammable liquids and gasses around the boiler.
- The boiler must have a separate inflow of fresh air.
- Kepo pellet boilers should be placed in boiler rooms **only**. They must not be installed in rooms where people live.
- Do not bring the boiler into contact with water as this may cause a short circuit of electrical components, boiler damage or fire.
- Do not spray the control glass with water or any other liquid as this may cause cracking of the glass and injury.
- Do not clean the control glass with agents containing alcohol or other substances that may cause burning or damage to the glass.
- The boiler is connected to 230V. It must be connected to the mains via the original cable supplied with it. Before connecting, check if your electrical installation meets the boiler connection requirements.
- In the event of any problem, failure or malfunctioning of the boiler, turn it off at the power switch at the back of the appliance, unplug the power cord and contact an authorized technician or the manufacturer.
- The boiler must not be maintained or handled by a person who is not familiar with this manual! Children and people with reduced psychophysical abilities must not handle the boiler.
- Do not try to solve problems on your own!
- The boiler must be handled by persons trained by authorized technicians only.
- Children 8 years of age and older, persons with reduced physical, motor or mental abilities, persons with little or no experience, may use such appliances if they are supervised or given instructions regarding the safe use of the apparatus and the dangers presented. which result from it. Children should not play with such apparatus. Appliances must not be cleaned and subjected to child maintenance without proper supervision.

Installing the boiler on chimney systems

A chimney must comply with the following conditions:

- It has to be set at a proper clearance to combustible or explosive materials.
- Devices other than the boiler may be connected to the chimney only with a special written permission and under supervision of our technician.
- Chimney has to be uniform, without any reductions or irregular curves.
- Chimney pipe must not pass through combustible materials.
- Potential buildings or other obstacles higher than the top of the chimney must not be placed too close to it.
- The chimney to which the boiler is connected must be insulated.

Proper connection of the boiler to the chimney



RESPONSIBILITY OF THE INSTALLER/KEPO AUTHORIZED TECHNICIAN

The installer is responsible to check if the installation and the air supply function properly and if all the requirements required for the installation of the pellet boiler have been fulfilled.

The installer is to ensure that the boiler is in compliance with local regulations applicable in the place where the boiler is installed.

The boiler must be used in accordance with the instructions given in this User Manual, as well as with all the mentioned safety measures.

The installer must check:

1. The type of the pellet boiler that is being installed,
2. Whether the room in which the pellet boiler is being installed is appropriate, i.e. minimum size of the room,
3. Compliance with the flue gas regulations set forth in the instructions supplied by the manufacturer of the heating device
4. The possibility of providing the external air intake,
5. The possibility of the simultaneous use of the heat source with other equipment already existing in that place.

If the above mentioned standards have been satisfied, then the installer may proceed with the installation of the boiler. The instructions provided by the boiler manufacturer, as well as the fire prevention standards and safety standards must be observed.

After the boiler has been turned on for the first time, the system must be put into a trial operation for at least 30-60 minutes in order to check that all the required conditions have been met.

Once the installation has been carried out, the installer is obliged to provide the client with the following:

1. User Manual issued by the stove manufacturer (delivered with the boiler),
2. The installer must teach the client how to handle the device, how to perform regular maintenance and cleaning.
3. To fill in Warranty Card on the last page of this User Manual

Technical support phone number(KEPO DOO): +381 31 783 927

Connecting the boiler

- Connect the boiler to the flue system and the pipe heating system.
- Provide sufficient inflow of fresh air.
- Plug the boiler into a 230V ± max 5% socket.
- Prior to commissioning, check if everything is done in line with this manual.
- Note: The boiler is not designed for open heating systems!
- Depending on the volume of water in the system, it may be necessary to install an additional expansion tank.

Commissioning the boiler

- Prior to the first commissioning and at the beginning of a new heating season, it is necessary to start the water pump manually by removing the screw and twisting the rotor with a flat screwdriver.
- Check if the pellet fire pot and its casing are cleaned; check if the ash pan is emptied.
- Check if the flue pipes are cleaned.
- Feed pellets into the tank. The boiler is ready for commissioning.
- An authorized technician is obliged to turn on the boiler first. He is also obliged to check if the appliance is properly installed as well as set the parameters for best use of energy and provide basic boiler operating instructions to the user.
- Ventilate the room at the first commissioning as there could be a small amount of unpleasant smell coming from the boiler.

Authorized technician does not install the room thermostat!

ATTENTION!

A potential-free thermostat contact is necessary.

Control panel

Home page 1		
<p>Date and time, temperature of the local room in use, local room thermostat in use, error signal tool</p>		<p>HOMEPAGE 1/2</p>
Selection keys		
 Ignition and unlock of the system with one click	 Access to Information Menu	
 Access to User Menu 1	 Access to chrono Function	
 Access to User Menu 2	 Access to error list (64 recordable errors)	
Main led		
<p>The arrow in the top side of the display allows you to have access to quick toolbar of the led. Here you can find:</p>		
		
 Combustion power set	 Chrono functionality state	 24 heating function enabled
 Summer	 Winter	 Climatic Function
 Wood	 Pellet	 System Functioning

Home Page 2

<p>System Functioning led</p>	 <p>HOMEPAGE 2/2</p>	 <p>12:18 Ven 14 Ott 2016</p> <p>Coclea Ventola Riscaldamento Uscita R Uscita AUX1</p> <p>Uscita AUX2 Crono Esterno Mancanza Pellet Termostato Ambiente Locale</p>
-------------------------------	---	--

System Functioning Led

<ul style="list-style-type: none">  Auger ON  Output A1 ON  Output A2 ON  Output A3 ON  Output A5 ON 	<ul style="list-style-type: none">  Pump ON  Exterior Chrono reached  Lack of fuel in the tank  DHW demand or buffer thermostat not satisfied 	<ul style="list-style-type: none">  Output V2 ON  Output V3 ON  Room Thermostat/ Remote keyboard Thermostat reached Room
---	--	--

Display

Figure 1 shows the boiler when turned off. 17 ° represents the boiler water temperature and 60 ° represents the set boiler water temperature.

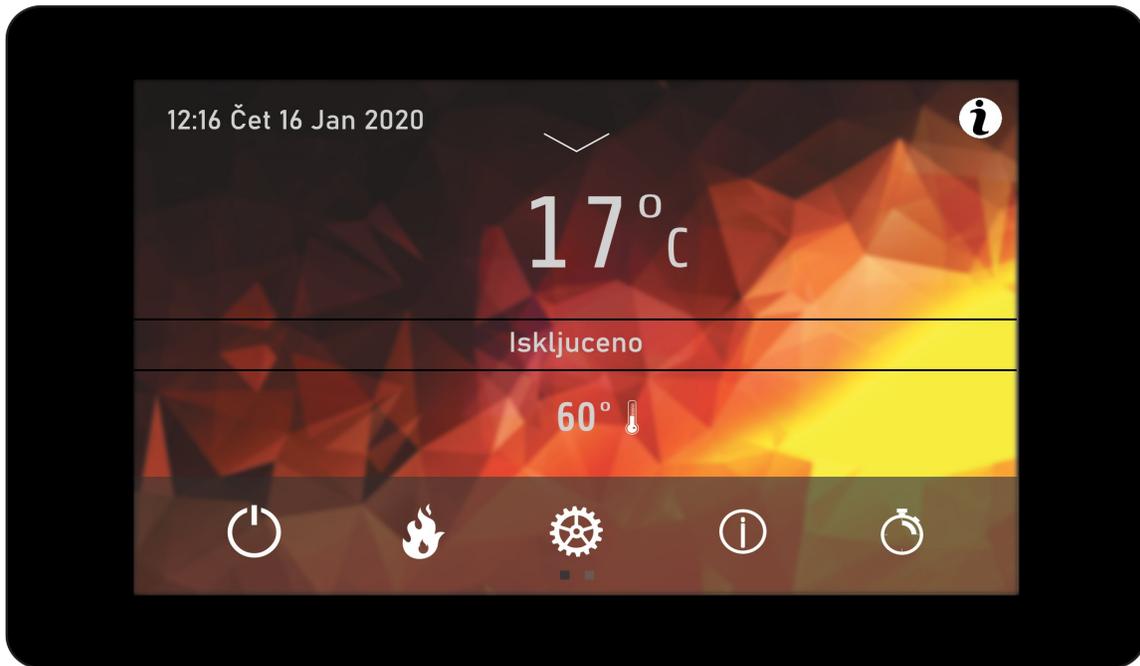


Figure 1

Figure 2 shows the display when an icon  is pressed on the screen of Figure 1 . Use your finger to drag the slide to the right and start / off the boiler.

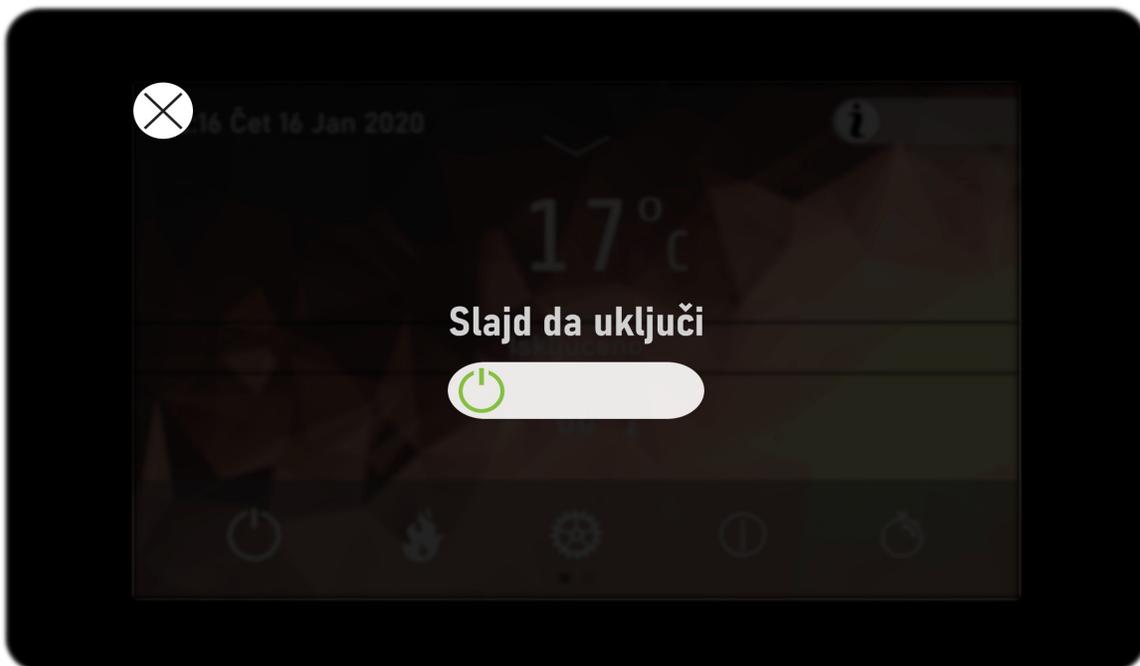


Figure 2

Figure 3 shows when the boiler is in modulation, ie. when the boiler reaches the set water or room temperature if a room thermostat is connected.



Figure3

Figure 4 represents the boiler in operating mode.

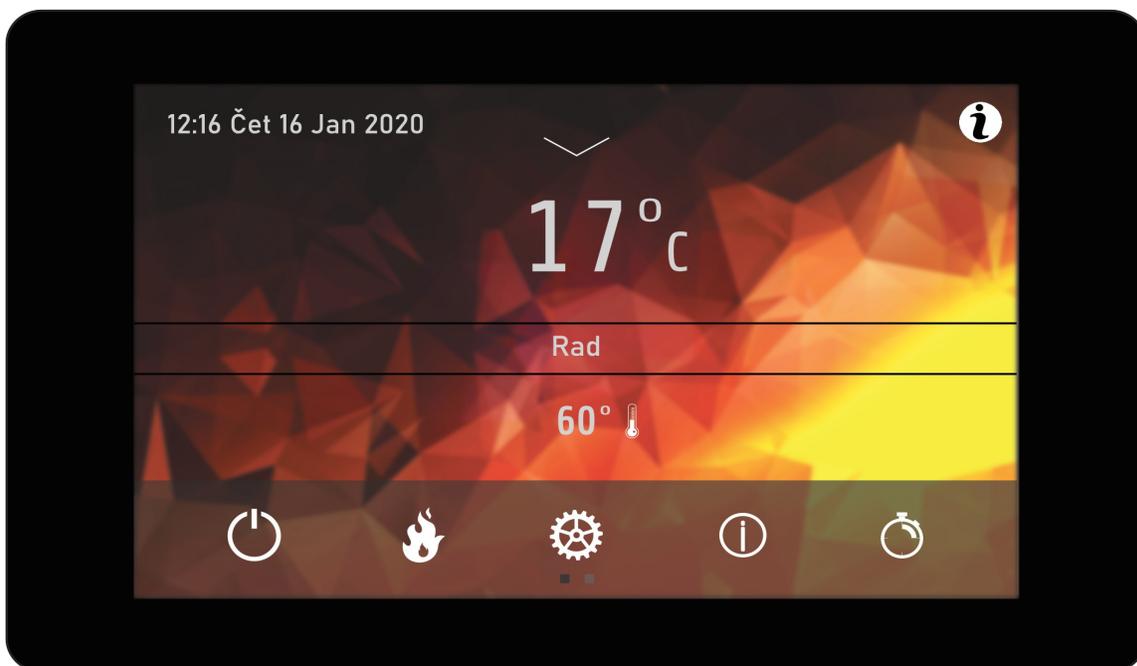


Figure 4

Pulling the slide (top arrow) down, you can see the current boiler power, time / day mode on; boiler switching on / off (Fig. 5 active day mode), winter mode.

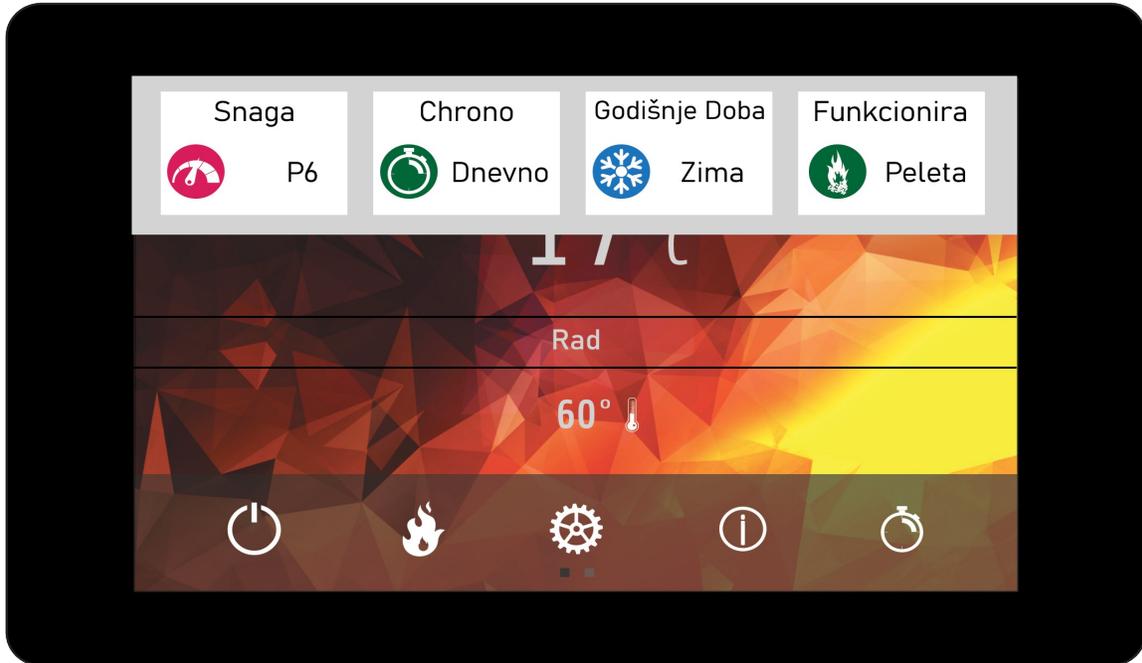


Figure 5

By clicking on the icon  from figure 5, enter the "Adjustment" menu where you can change the boiler power or adjust the water temperature - Figure 6.

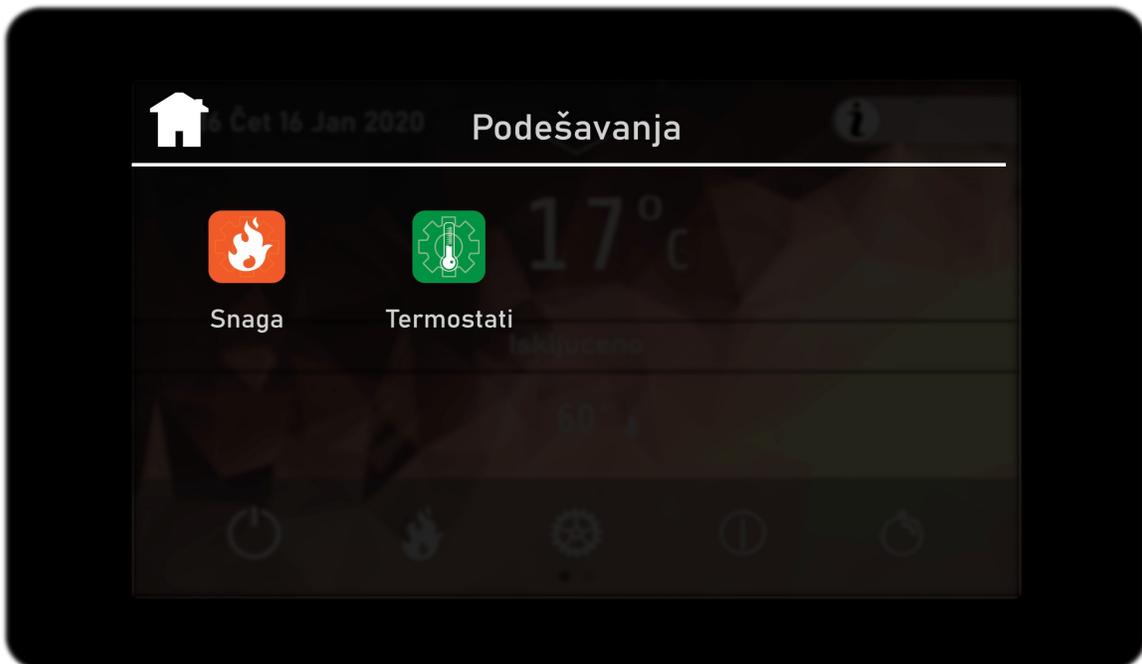


Figure 6

In the "Power" pellet menu, you can adjust and change the boiler power, Fig. 7.

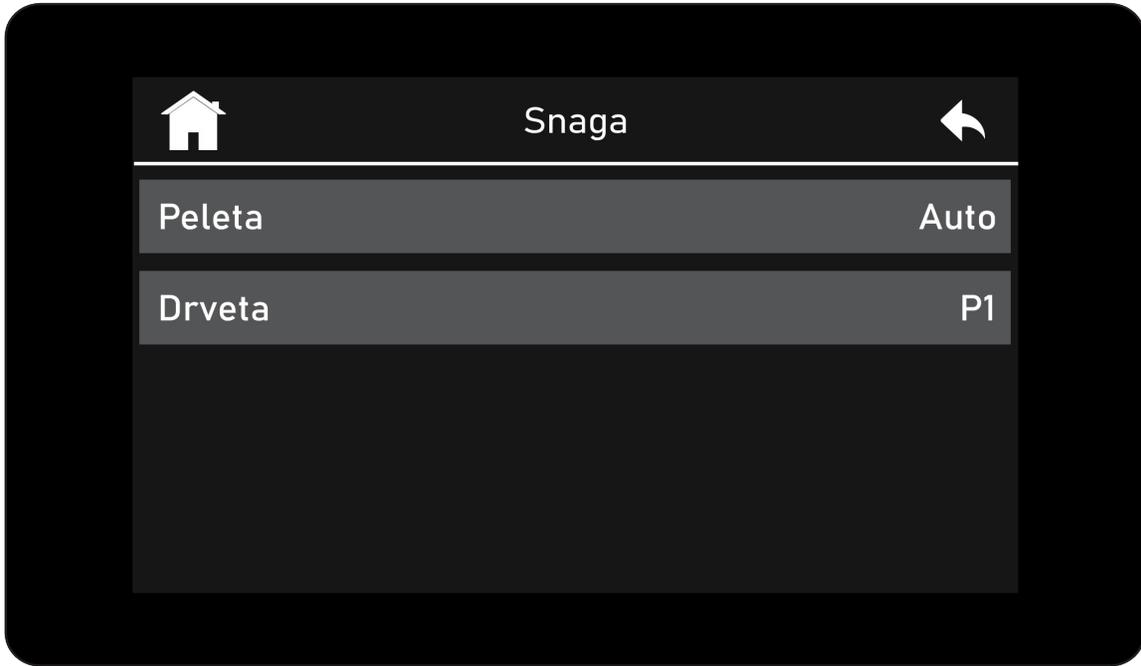


Figure 7

If you decide to adjust the boiler power P (1-6), the boiler will only operate at the selected speed.

Set boiler to "Auto" The boiler will automatically change the boiler power as needed, Figure 8.

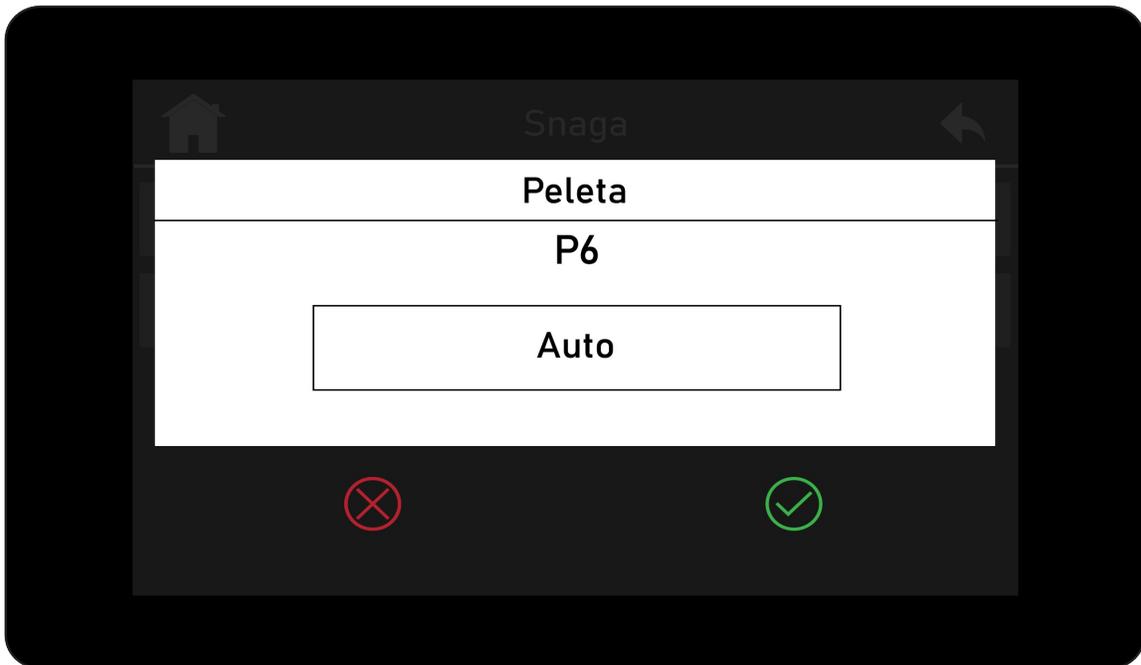


Figure 8

In the submenu “Thermostats”, figure 9, you can change the water temperature in the boiler in the range of 60-80 ° C.

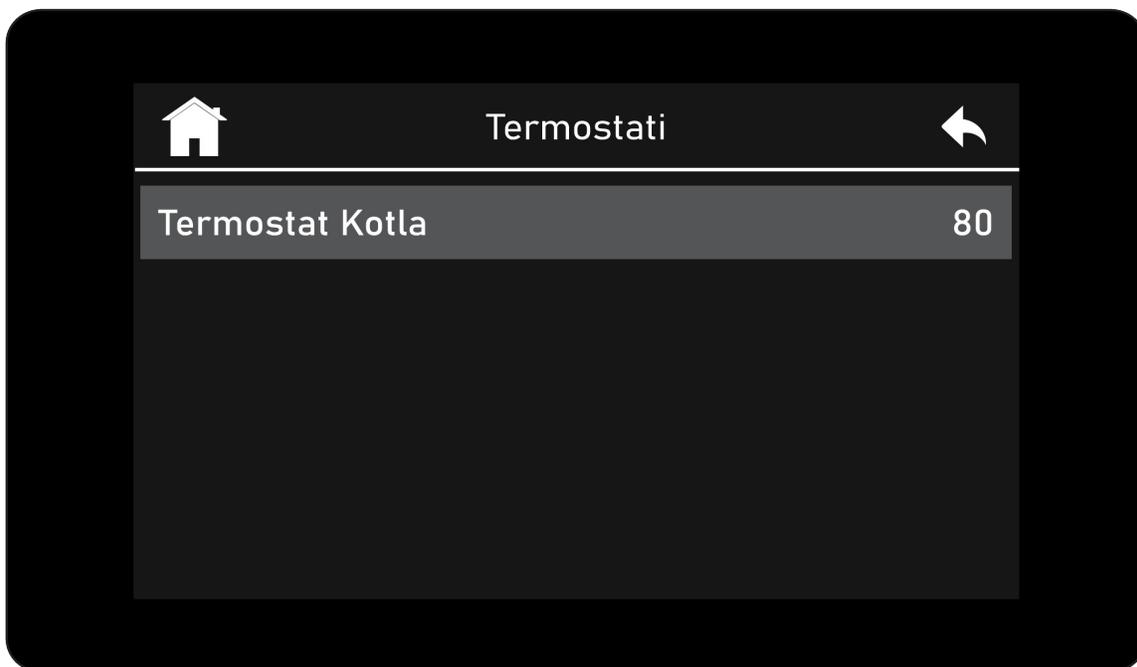


Figure 9

By clicking on the icon , you can enter the settings in Figure 10.

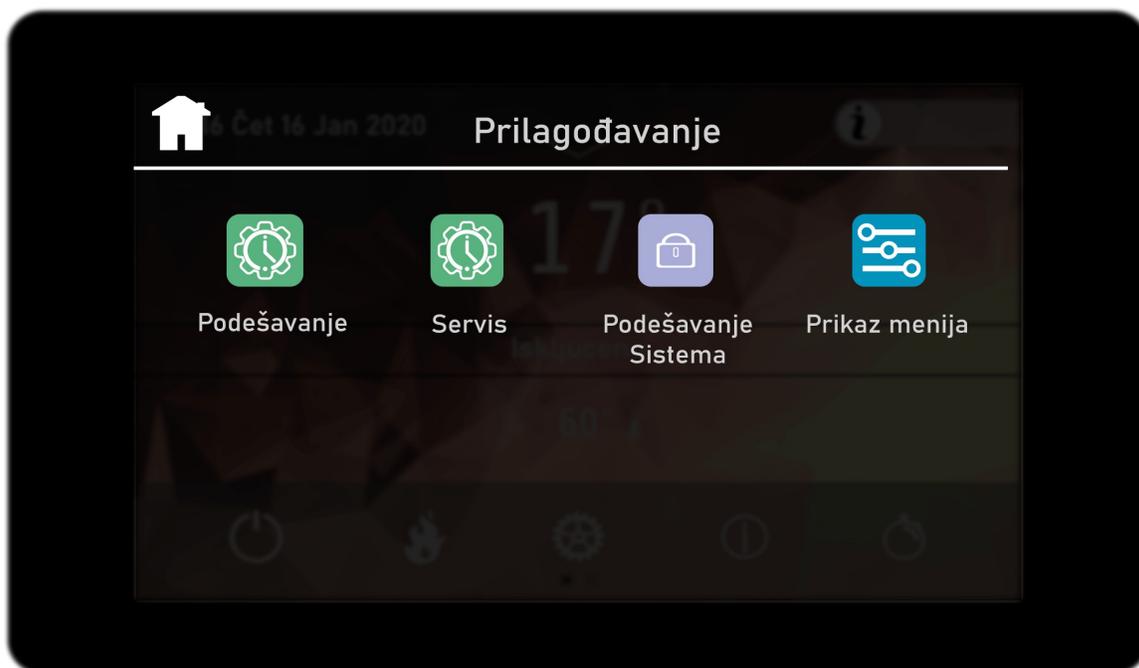


Figure10

By clicking on the icon , you can set:

- date and time,
- Language,
- remote control if there is an external device in the room for measuring ambient temperature and
- choice of "recipe" of combustion.



Figure 11



Figure 12

In the service menu, Figure 13, you can see the following:

- counters - boiler ignition number and boiler operating time,
- dosage boost at all strengths $\pm 3\%$,
- fan power amplification at all power levels $\pm 3\%$.
- automatic boiler power on / off



Figure 13

Figures 14 and 15, show the screen settings.

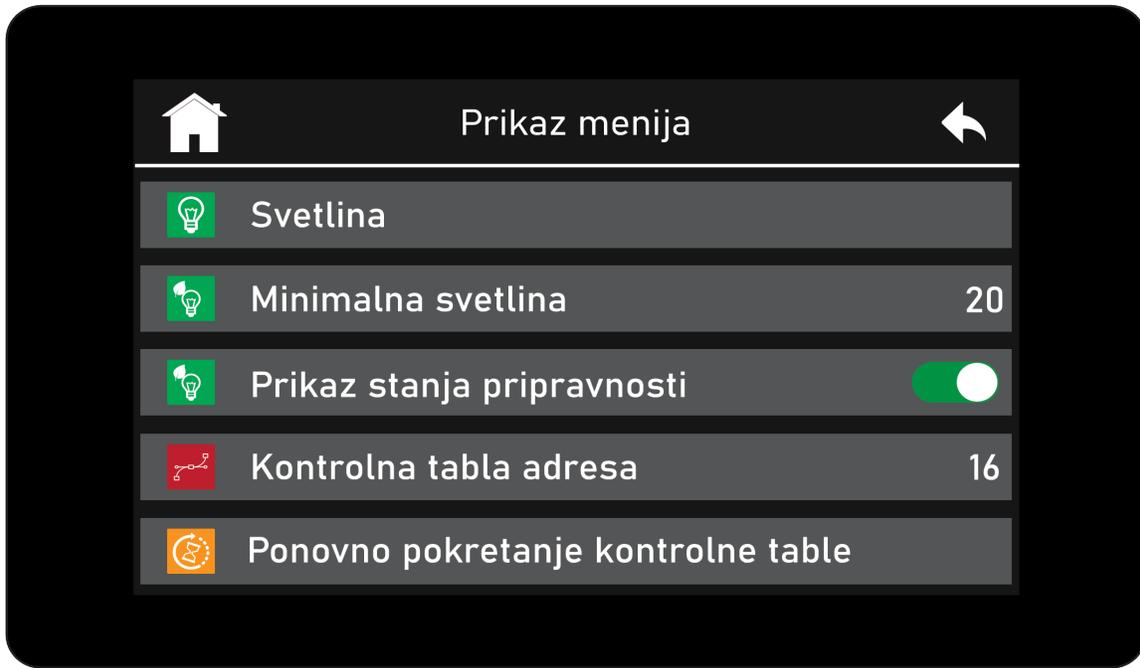


Figure 14



Figure 15

From main Menu by clicking on icon  you can check the information in Figure 16.



Figure 16

In the Hrono setting, Figure 17, the daily, weekly or weekend program of boiler start-up and shutdown can be adjusted.

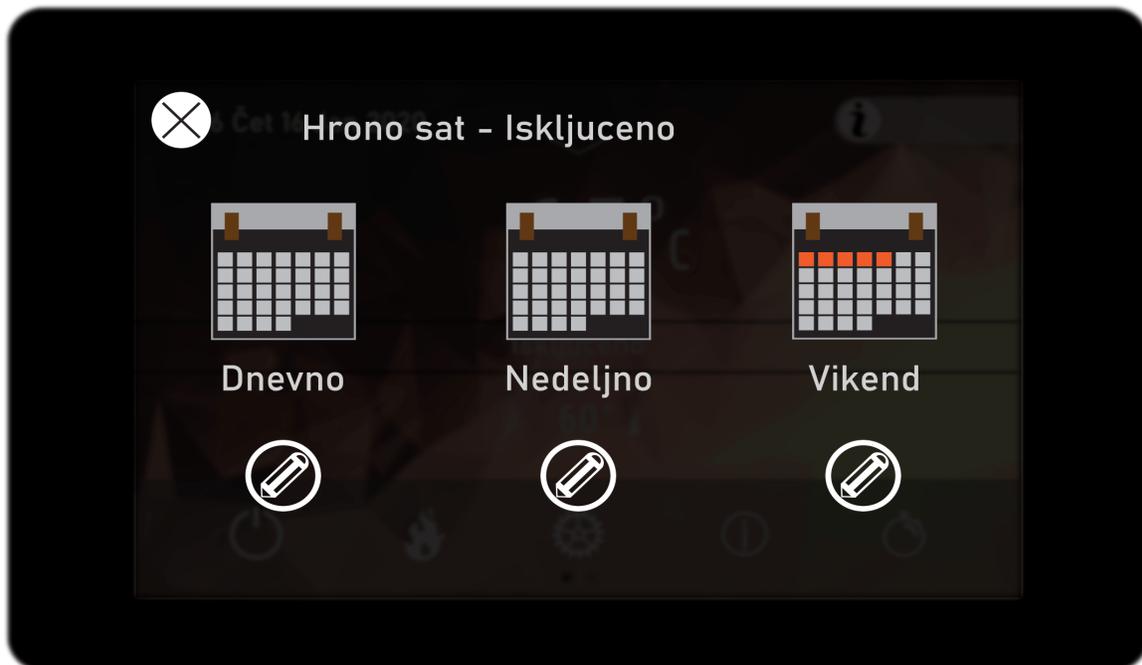


Figure 17

In Figures 19 and 20, you can see what the active components are at the time of “Checking” (Fig. 18) by dragging the slide from right to left.



Figure 18

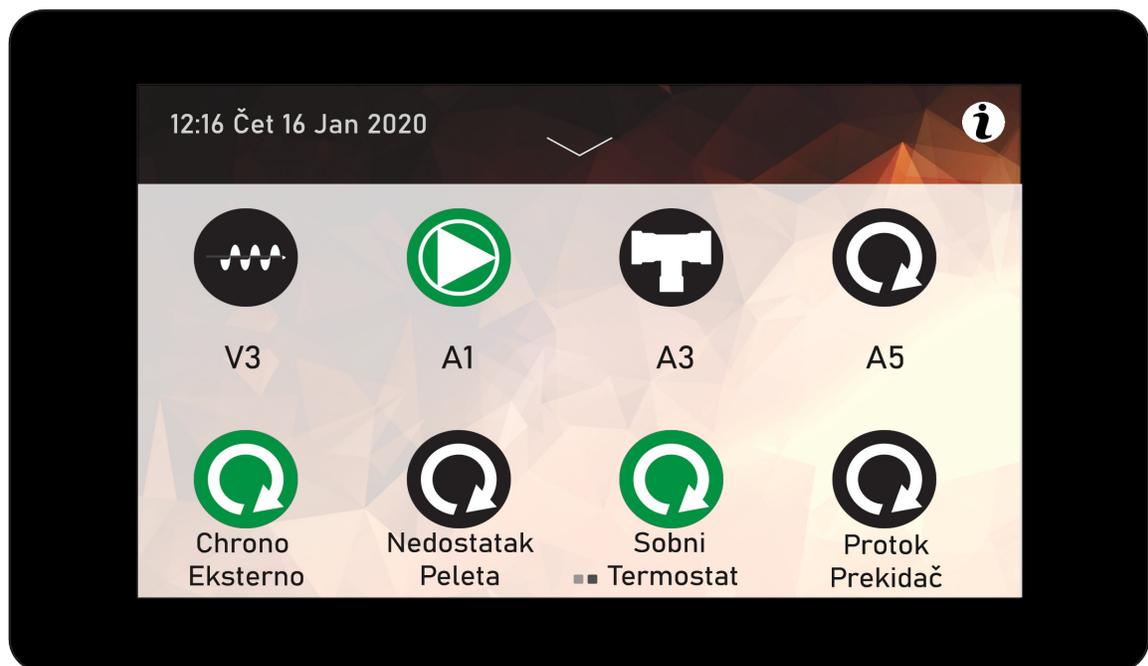


Figure 19

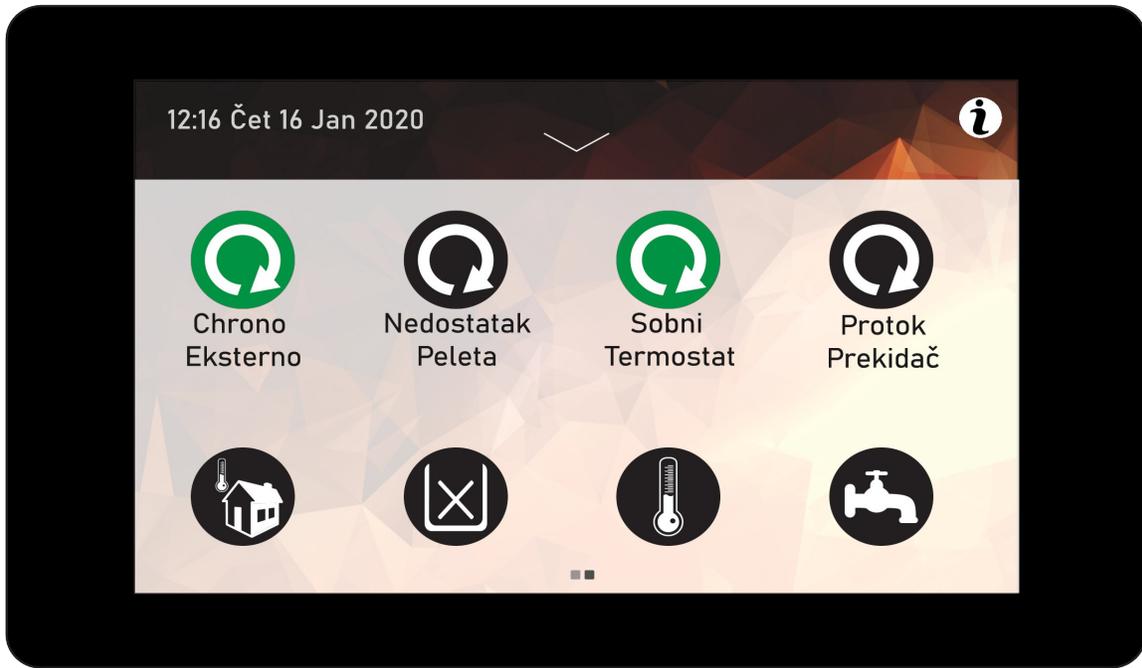


Figure 20

Alarms

The system goes in Block with any alarm	
Description	Codes
	K
Safety Thermostat Intervention HV1: signal even when the stove is off	Er01
Intervention of the safety Pressure Switch HV2: signal with Combustion Fan On	Er02
Extinguishing for exhaust flue gas temperature decrease	Er03
Extinguishing for water overtemperature	Er04
Extinguishing for exhaust flue gas overtemperature	Er05
Combustion Fan Encoder: lack of encoder signal (if P25 =1 o 2)	Er07
Combustion Fan Encoder: speed regulation failed (if P25 =1 or 2)	Er08
Low Water Pressure	Er09
High Water Pressure	Er10
Incorrect Time/Date values after long absence of the power mains	Er11
Ignition failed	Er12
Power Supply hole	Er15
Communication Error RS485	Er16
Air Flow Regulation Failed	Er17
Lack of fuel	Er18
Boiler Probe or Boiler return Probe or Buffer tank Probe or Low Buffer tank open	Er23
Cleaning Engine broken	Er25
Cleaning Engine2 broken	Er26
Cleaning Engine 3 broken	Er27
Flowmeter Sensor broken	Er39
Minimum air flow in Check Up not reached	Er41
Maximum Air Flow overreached (FL40)	Er42
Door Error	Er44
Auger Encoder: lack of Encoder signal (if P81 =1 or 2)	Er47
Auger Encoder: speed regulation failed (if P81 =1 or 2)	Er48
Modified Hydraulic Plant	Er56
Service Error. It notifies that the planned hours of functioning in 'Maintenance 1' function have been reached (parameter T66). Call the Authorized Technical Service Centre.	SERVICE

Information

DISPLAY	UNIT	DESCRIPTION
K		
Exhaust flue gas T.	[°C]	Exhaust flue gas temperature
Flame Light	[%]	Flame Light; it is displayed only if an input has been set as Photo-resistance
Water T.	[°C]	Boiler temperature
Room T.	[°C]	Local room temperature; it is displayed if an input has been set as Room probe or if the remote control 2Ways2 is on
Buffer tank T.	[°C]	Buffer tank temperature; it is displayed if an input has been set as Buffer tank probe
Low Buffer tank T.	[°C]	Low buffer tank temperature; it is displayed if an input has been set as Low Buffer tank probe
DHW T.	[°C]	DHW Temperature; it is displayed if an input has been set as DHW probe\
Supply T.	[°C]	Supply temperature; it is displayed if an input has been set as Supply/Return probe
Water Pressure	[mbar]	Water Pressure; it is displayed if an input has been set as Water Pressure Sensor
External T.	[°C]	External temperature; it is displayed if an input has been set as external probe
-	-	Air Flow; it is displayed if an input has been set as Primary Air Regulator
-	[rpm]	Speed of the Exhaust flue gas Fan; it is displayed only if P25 is different from 0
-	[s]	ON time of the Auger; it is displayed if P81 is the same as 0
Recipe	[nr]	Combustion Recipe Selected; it is displayed if P04 is greater than 1
Service	[h]	Combustion Recipe Selected; it is displayed if P04 is greater than 1
Clean	[h]	Functioning time left before the cleaning of the stove; it is displayed if T67 is greater than 0.
Pellet	[%]	Estimated pellet remaining in the tank
-	-	Summer (<i>Est</i>) /Winter (<i>InU</i>) Modality functioning
-	-	State of the Night Mode function
-	-	Firmware Code and Revision: FYSr03000002.x.y
-	-	Product code



Before cleaning any part of the stove, it must be checked that all parts are cold and that the plug is removed from the socket to prevent burns and electric shock.

Always follow the indications in maximum safety!

- Make sure that the power supply cable plug is disconnected, since the generator could be programmed to switch-on,
- That the boiler is completely cold.
- The ashes are cold.
- Guarantee effective ventilation of the room when cleaning the product.
- Lack of cleaning jeopardises correct operation and safety!

Boiler cleaning and maintenance

Before cleaning any part of the boiler, always remember to check that the parts are cold and the boiler is unplugged to prevent burns and electrocution. Needs for cleaning may vary depending on how often the boiler is used.

Cleaning the heat Exchangers (lever on the right side of the boiler)

The cleaning should be done at least once in 3 days by pulling the lever back and forth several times. The lever should be returned to the position toward the back of the boiler. You should use the lever each time you feed pellets and operate the boiler.

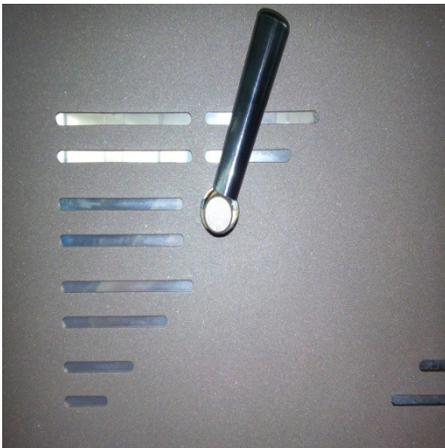


Figure 1



Figure 2



Not cleaning the boiler regularly may cause problems with the operation and in the form of improper combustion, clogging of the burner grille and shutting down the boiler, which may cause poor combustion.

Cleaning/checking the burner



**ALWAYS USE THE GLOVE WHEN
YOU OPEN THE BOILERS DOOR!**

Cleaning the ash pan

Ash formed in the pellet burning process is filling up the ash pan. The tank should be emptied once in 5-10 days, depending on the use of pellets (**Figures 3 and 4**).

Note: When putting back the ash pan lid, twist the two Bakelite nuts on the ash pan carefully to the end for better sealing.



Figure 3



Figure 4

Cleaning the back chamber

The cleaning is done when 500-1000kg of pellets are used.



The 15, 20 and 25kW boilers have a lid with four nuts behind the ash pan. The lid should be removed after each 2000kg of used pellets. In the central extended part, there is a small casing on which the ventilator is mounted. Make sure it is cleaned as well.

Cleaning the pressure switch opening



The brass opening for the pressure switch should be cleaned after 2000kg of used pellets. It can be easily accessed by removing the service lid on the left side of the boiler and removing the silicone hose. Clean the opening slowly with a wire. Put the hose back in its place.

Ash hoover facilitates maintenance of the boiler.

NOTE: The boiler should not be cleaned while in operation and until the cleaning final mode (exhaust and cooling of the boiler and ash) lasting up to 10 minutes is done right after the boiler shuts down.

MAJOR CLEANING OF THE HEAT EXCHANGERS

The cleaning is done as part of annual service. The first major cleaning of the heat exchangers is done by a technician authorized by Kepo.

CLEANING THE FLUE PIPES

The cleaning is done as part of annual service. In the case of need and depending on the amount and quality of used pellets, the flue pipes may be cleaned once during the heating season.

CLEANING THE VENTILATOR

The cleaning is done once a year, as part of annual service.

CONTROL OF ALL ELECTRO-MECHANICAL COMPONENTS

This is done once a year, as part of annual service.

Frequently asked questions

1. Where are Kepo pellet boilers manufactured?

The Kepo pellet boilers are made in our company based in Kosjerić, Serbia. The boilers are made of boiler tin plate produced by Železara Smederevo. Accessories are imported from Italy, Great Britain and Switzerland.

2. Do I need accessories to put the boiler into operation?

The pellet boiler comprises all elements necessary for its installation into the central heating system: filling and emptying valves, safety valve, expansion tank and water pump. If you wish to extend the 2-year warranty to 5 years, a mixing valve with a 40-70°C thermostat must be installed to ensure a much longer service life of the boiler.

It is necessary to purchase flue pipes attested for pellet boilers and stoves in order to connect the boiler and chimney.

3. How safe is it to use the boiler?

The boiler has multiple protections against overheating. The first level of protection is electronics that do not allow the water temperature to exceed 85°C. A safety thermostat, which interrupts feeding of pellets when the boiler is nearing critical temperature, is the second level of protection. In addition, the thermostat does not allow overheating of the boiler, but reports the error and shuts the boiler down.

The electronics does not allow a system pressure level higher than 2.5 bar or lower than 0.6 bar. It reports the error and shuts down the boiler in both cases.

If for some reason the electronics fail, the boiler has a safety valve which drains water from the system to 3 bar, thus relieving the pressure.

The boiler also has a safety pressure switch vacuum. Its role is to discontinue pellet feeding, prevent the possibility of smoke from penetrating out of the system, report the error and shut down the boiler in the event of flue pipe clogging or poor gas flow through the chimney.

The boiler has a mechanical valve which reduces pressure in case it gets excessive in the combustion chamber, thus preventing any problems in the future operation of the boiler.

4. What types of boilers do you have on your offer?

Kepo offers two series of boilers: **AC** (automatic cleaning of the fire pot) and **MC** (manual cleaning of the fire pot), with 15, 20, 25, and 35kW power.

5. Does the boiler operation require a fresh air supply?

The Kepo pellet boiler is a major oxygen consumer. It is, therefore, necessary to provide a sufficient supply of fresh air.

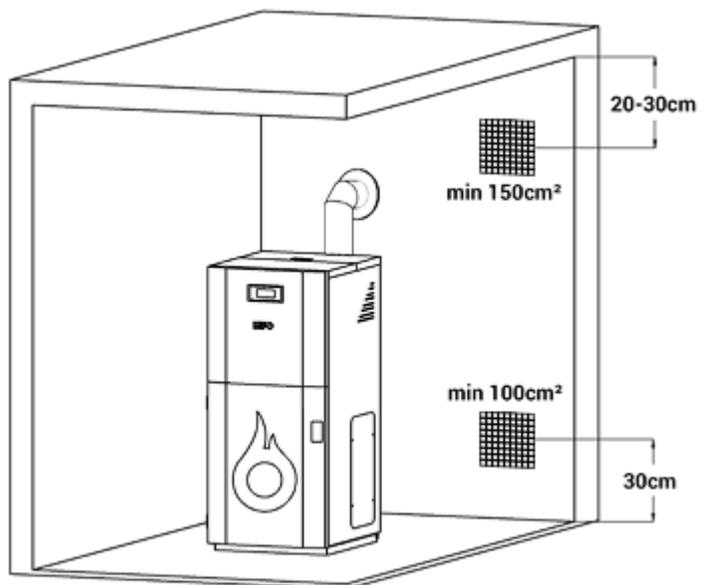
It is necessary to make an air vent of at least 100 cm² in the lower part of the boiler room.

It is advisable to make an air vent in the upper part of the room as well.

6. Do I need a chimney?

It is necessary to connect the boiler to an insulated chimney, 3m minimum height and ø130mm minimum diameter.

In its production program, Kepo has mountable, insulated inox chimneys. Contact us for further information on the



chimneys.

You must not in any way convey flue gasses via uninsulated flue pipes from the outside of the wall or outside of the insulated area, as this will cause condensation and interfere with boiler operation and transmission of flue gasses.

7. Does the boiler have the automatic operation mode?

Yes, the boiler has an automatic operation mode, and it can be set in two ways: through automatic boiler control or via room thermostat.

8. What is the pellet tank volume?

- AC/MC 15 - 67l
- AC/MC 20 - 103l
- AC/MC 25 - 125l
- AC/MC 35 - 200l

9. How often do I clean the boiler?

Boiler cleaning can be done regularly and generally, and the frequency depends on consumption. Regular cleaning is done once in 3 to 7 days. General cleaning is done once a year. Boiler maintenance has a considerable impact on pellet consumption and reliable operation.

The most common causes of automatic boiler shutdown are poor pellet quality and irregular maintenance.

10. How important is pellet quality for proper boiler operation?

It is one of the most important factors for proper boiler operation.

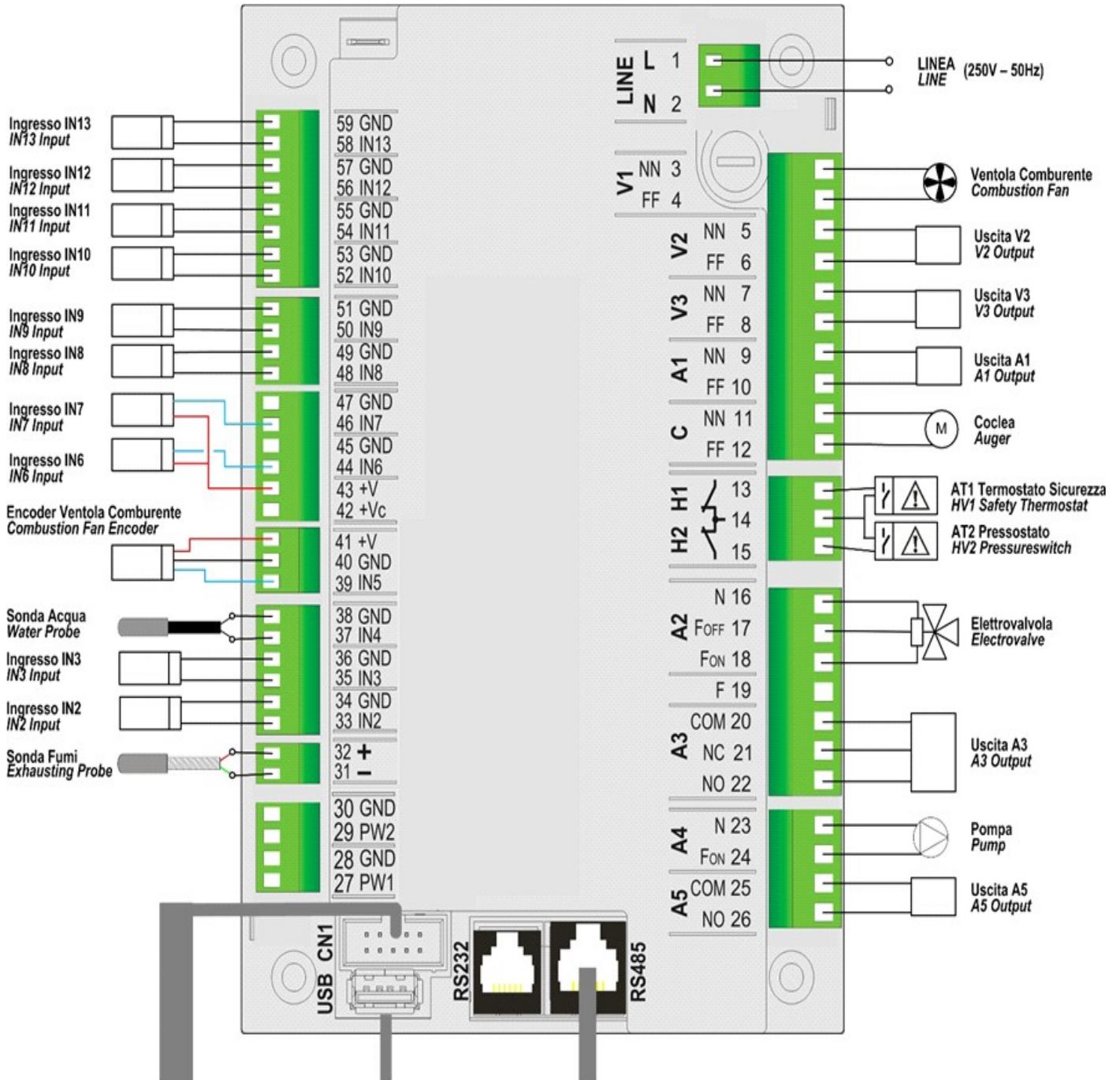
Parameters are set and the boiler is put into operation in accordance with conditions at the site of installation. When the parameters are aligned with your chimney and oxygen inflow, pellet is the next thing that proper operation depends on.

Quality pellets are never too expensive! By using quality pellets you avoid:

- numerous servicing costs
- automatic boiler shutdowns as a result of poor combustion in the ash pan
- huge deposits of ash in the flue pipes resulting in more frequent boiler cleaning than planned
- greater pellet consumption

The pellet boiler works in accordance with the principle of controlled combustion. Therefore, quality pellets are indispensable for a smooth and economical operation.

Electric connections



Pannello Comandi Serie CP
CP Series Control Panel

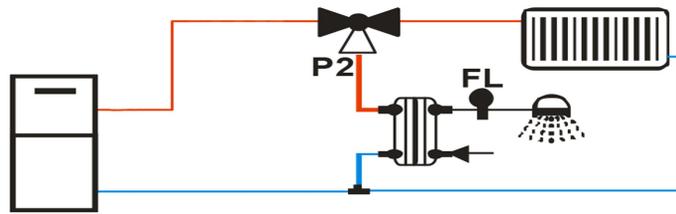
Chiavetta USB
USB Flash Drive

Pannello Comandi Serie LCD e K
LCD and K Series Control Panel

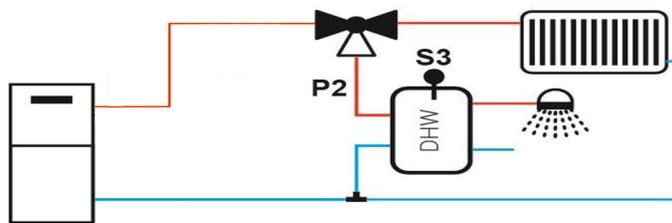


Hydraulic diagram of boiler connection

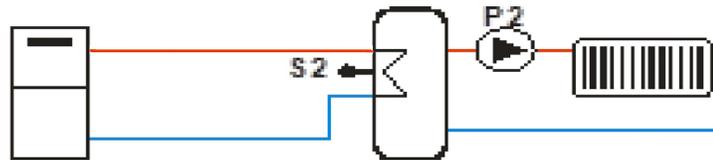
Configuration 0 (**P26=0**)



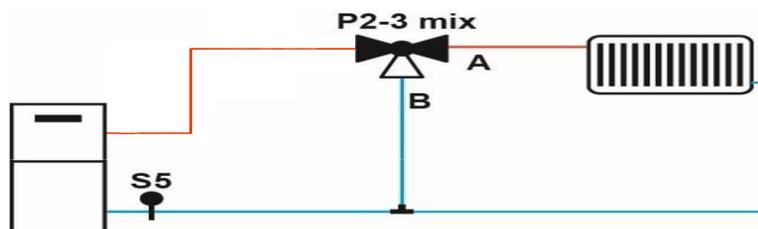
Configuration 2 (**P26=2**)



Configuration 4 (**P26=4**)



Configuration 7 (**P26=7**)



Warranty statement

Warranty on the boiler and all its electric parts is **25 months** from the date of the warranty certification and the first commissioning.

Warranty on the water part of the boiler is **5 years** from the date of the warranty certification and the first commissioning.

It is recommended to install a three-way thermostatic valve with thermo head $40^{\circ}\text{-}70^{\circ}\text{C}$ for better and more quality operation of the boiler (see picture).

Diagram of connecting thermostatic mixing valve HERZ Calis TS RD with thermostatic head

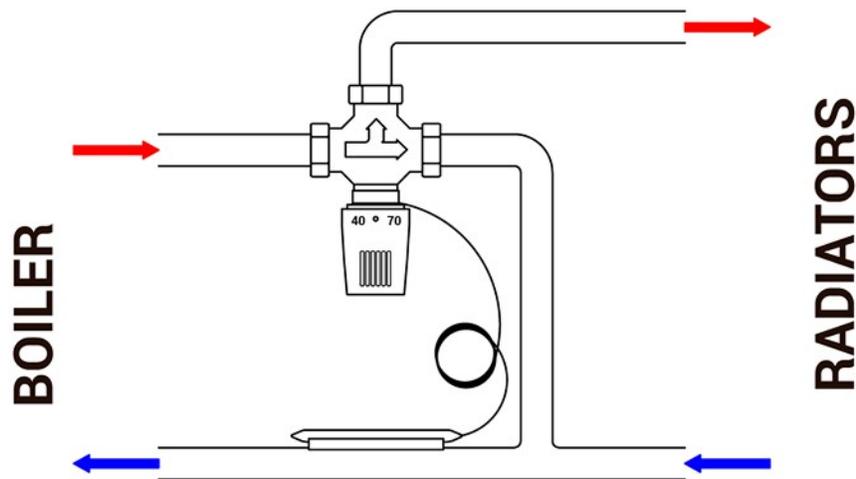
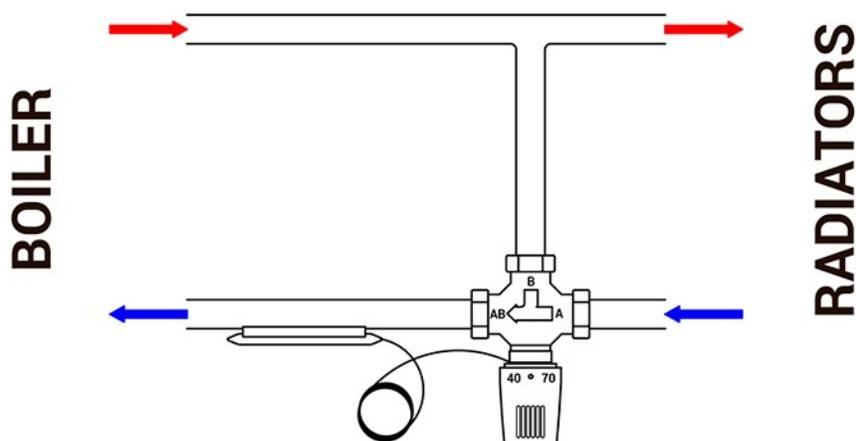


Diagram of connecting thermostatic mixing valve HEIMEIER



Warranty conditions:

1. The first commissioning and user training must be done by a Kepo LLC-authorized technician
2. Costs of emergency servicing caused by improper use or not adhering to the instructions shall be borne by the user
3. The user is obliged to use the original boiler spare parts only, recommended by a Kepo LLC-authorized technician

The manufacturer does not accept liability if a malfunction occurs due to:

- Poor boiler maintenance
- Non-compliance with operating instructions
- Damage or malfunction caused by the user
- Any repairs or modifications done by unauthorized individuals, without the manufacturer's approval
- Using spare parts not approved by the manufacturer
- Using poor quality pellets
- Poor installation (electricity, heating system, etc.)
- Unforeseen events (lightning, floods, etc.)

Technical support phone number: **+381 31 783 927**

Best regards,

Kepo doo

WARRANTY CARD

Product **KEPO pellet boiler**

Model

Serial number

Date of production

Manufacturer stamp and signature

Date of purchase

Seller stamp and signature

Date of commissioning

Technician stamp and signature