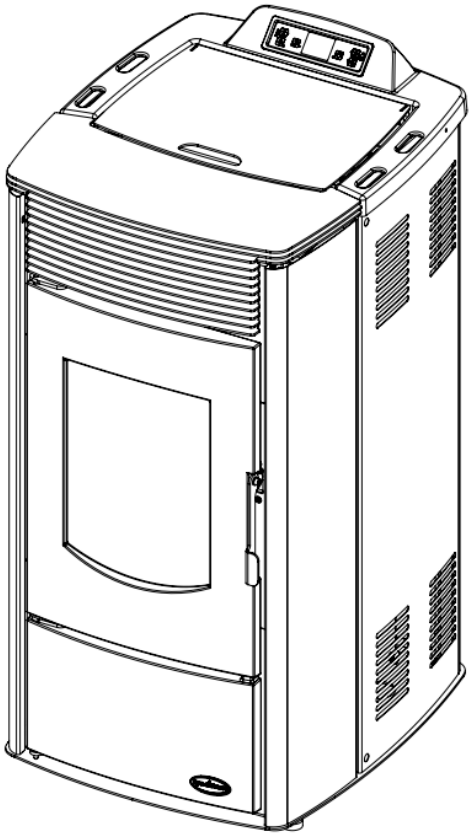
RITTIUM HYDRO

Owners's manual

INSTALATION, ADJUSTMENT AND OPERATING INSTRUCTION



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1. WHAT IS PELLET?

Pellet is an energy fuel with high energy efficiency that is produced in special technological process of milling, drying and pressing of various materials of biological origin. As raw materials for its production can be used wood from forestry waste, firewood, sawdust and other wood waste (wood pellets); the straw of wheat and soybeans, corn and sunflower husks (agro pellets).

Nowadays, when the accent has been put on environmental protection and sustainable development, fuels produced from biomass are increasingly gaining in importance.

Using pellets as a fuel material has multiple advantages either for the environment or, at the first place, for a customer itself:

- Using one ton of pellets, for the same heating quantity, replaces 500 liters of heating oil, or 450 kg of propane-butane, or 600 cubic feet of natural gas, or 4800 kilowatt-hours of electricity;
- It significantly reduces emission of harmful gases, such as: carbon dioxide, sulfur dioxide and mercury, and the burning leaves only 0.5 - 1% of ash;
- Wood pellet is made of 100% natural materials and contains no added binders, chemicals or additives;
- Compared with other fuels or using electricity, the use of pellets is much more cost-effective;
- Pellet takes up far less space than coal and firewood.

1.1 Quality of pellet

The quality of pellets is of great importance for the stove. If the pellet is substandard and inadequate in size, it can bring to a poor performance of the stove.

Here are some advices on how to choose and store pellets:

- diameter of the pellets should be 6 mm and length about 30 mm;
- use only wood pellets;
- pellet should be cylindrical;
- good quality pellet should quickly sink when thrown into a glass of water;
- pellet is not adequate when in a bag of pellets you find a lot of dust or friable;
- a pack of pellets should be hermetically sealed, because pellets absorbed humidity;
- humidity must be less than 10%;
- pellets are supposed to be stored in dry, well ventilated room, out of the reach of flammable elements or devices which during operation create a high temperature

2. REMARKS BEFORE OPERATING THE STOVE

Always follow the references given in this chapter. The manufacturer doesn't take a responsibility for consequences in opposite cases. Not respecting the instructions of use and maintenance, cause the lose of right for consumer warranties.

- before operating the stove, please read this manual;
- stove is used exclusively for heating;
- keep the stove away from flammable materials;
- keep the stove in dry places;
- keep the children or pets away from the stove, because some parts emits high temperatures and they can cause burns;
- do not touch the parts that emit a high temperature, such as smoke drain, glass, fire door, the side;
- for heating use only a pellet which was originally made of ***wood***;
- stove should be cleaned only when it is cold (the stove is completely cooled after 30 minutes after turning off the stove);
- stove should be cleaned only when it is disconnected from the power source on the main switch (Chapter: basic parts of the stove);
- in the room where stove is placed, it is necessary to ensure a permanent supply of fresh air;
- stove must be installed in accordance with these manual (Section: stove installation)

Stove and its packaging are made of materials that can be recycled. Stove, which is not in use any more, should be put away in an adequate place or else you should call the service for waste disposal. You must act according to a regulation in force in the country where the stove is placed.

For any defect you need to call a qualified technician. All defects must be removed by an authorized service technician. In case that an unauthorized person repairs a stove, you will automatically lose a warranty and any further repairs by an authorized service will be charged.

NOTE: Each stove before packing requires the operation and safety control; therefore it's possible to find some burning remains in the firebox. It is also possible to find a small amount of pellets in the store.

During the first firing can occur some paint burning, therefore it's recommended to ventilate the room well after.

3. TECHNICAL CHARACTERISTICS

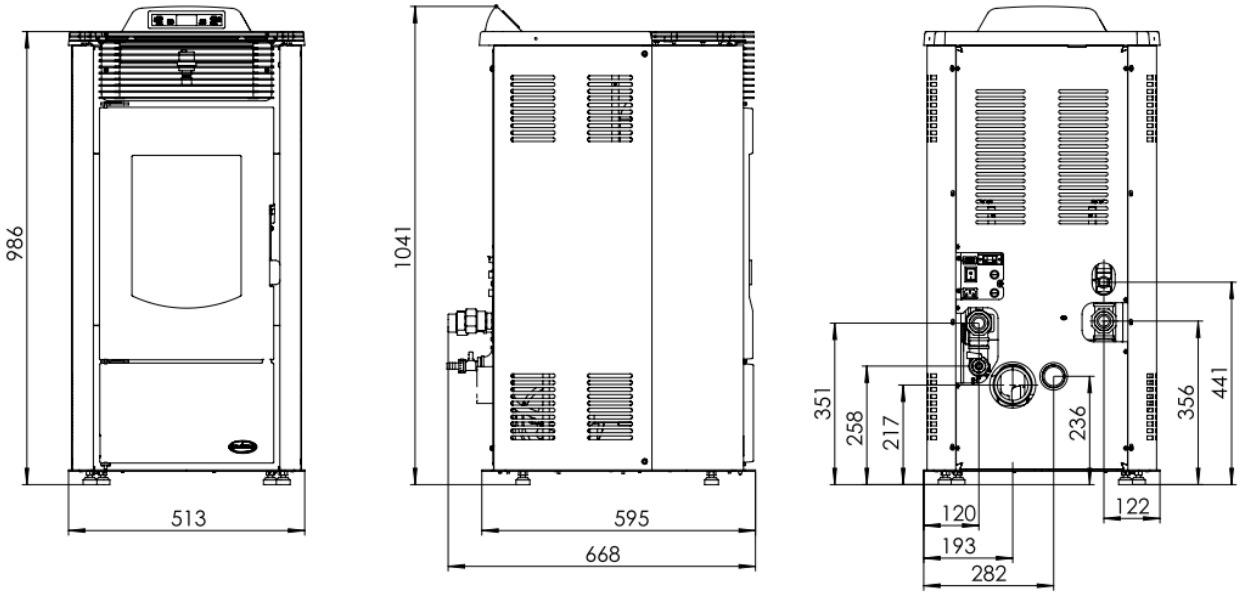
Table 1. contains the technical characteristics.

Table 1.

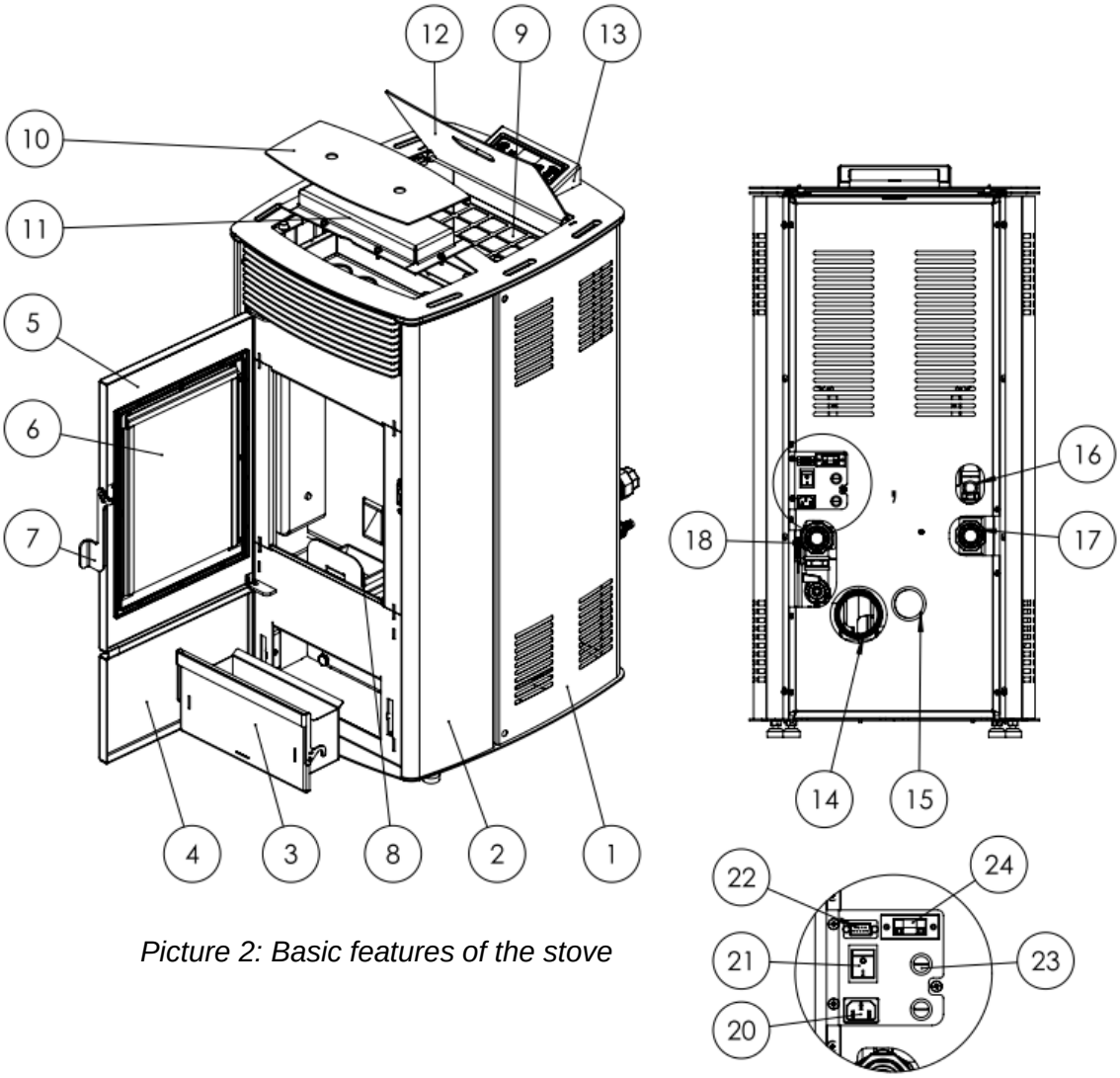
Maximal heat power	kW	15
Nominal power / Air / Water	kW	14,62 / 4,30 / 10,32
Efficiency	%	92,37
Dimensions (W x D x H)	mm	523 x 684 x 1041
Weight	kg	136
Fuel (dimensions)		Wood pellet (∅6 mm L≈30 mm)
Exhaust	mm	∅ 80
Draft	Pa	12±2
Storage capacity	kg	19
Voltage	V	230 ± 15%
Frequency	Hz	50
Electrical power during the operation	W	55 - 160 *
Electrical power during the initialization	W	400 - 450 **
Efficiency	%	92,37
Reduced power nominal/air/water	kW	4,3 / 1,3 / 3
Fuel consumption- nominal	Kg/h	3,475
Fuel consumption-reduced	Kg/h	1,392
CO (13%O2)%	%	0,0053
Exhaust gasses temperature	°C	124
Working temperature	°C	5 - 60
Storage temperature	°C	-10 - 60
Maximal relative humidity (vithout condensation)	%	95

* - depending of which fan is on, as well as the motor reducer

** - lighter and emissions fan is on (400W), while an motor reducer is occasionaly getting on



4. BASIC PARTS OF THE STOVE



Picture 2: Basic features of the stove

1. Rear lateral
2. Front lateral
3. Ashtray
4. Ashtray door
5. Door of the firebox
6. Glass on the door
7. Door handle
8. Combustion pot
9. Storage
10. Cover
11. Cover of cleaners chamber
12. Storage cover
13. Display with commands
14. Smoke drain
15. Fresh air inlet
16. Safety valves
17. Water outlet 1"
18. Water inlet 1"
19. Drain valve
20. Socket
21. Main switch
22. Communication port (RS232)
23. STB Fuse
24. External thermostat connection

5. INSTALATION OF THE STOVE

With a stove you get the users manual, remote control, power cable. Parts that are included with the stove are presented on a Figure 3.

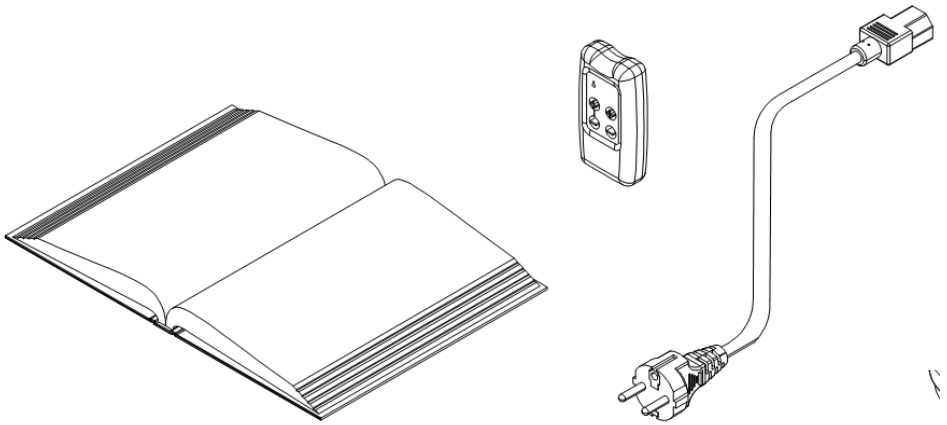
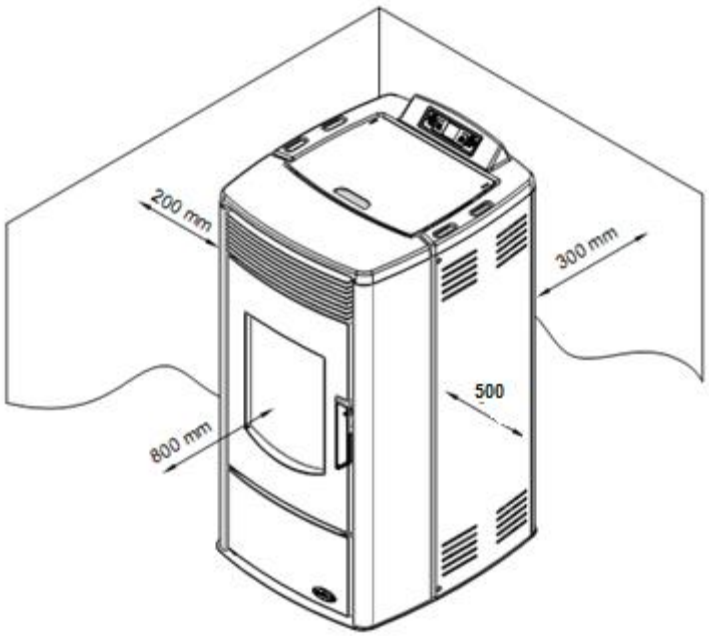


Figure 3. Included gadgets

Before you start installation of the stove you shoul read carefully instructions for use and maintenance, get to know well a regional regulations and legislation, in order to apply them. You must provide enough air in the room where the stove is placed in order to provide a optimal combustion.



Place the stove as close as possible to a smoke drain, where is also a power connection. The stove shuld be away from any possible obstacles, like presented in Figure 4 (for safety reason and for maintenance).

Figure 4.
Optimal distance

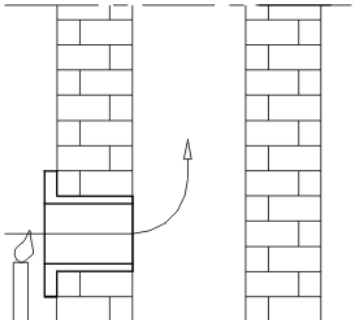
Stove should be set 300 mm away from the obstacle on its sides, 300 mm from the back side, while the front side should be at least 800mm away from obstacles. Do not place any objects on

the stove, because they could be damaged by a high temperatures that the stove emits. **You should leave some space arround stove in order to allow easier servicing of the stove.**

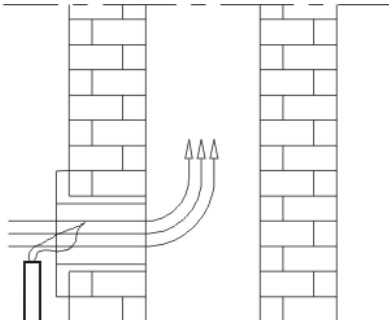
Under the stove can be set some sheet metal or a thicker glass of, minimal dimensions 700 x 800 mm, in a way that the front part is longer than the stove itself.

The stove stands on adjustable feet which must be set so that the stove is stable. Feet are being adjusted by simple unscrewing or twisting.

Befor mounting the stove, check the draft in the chimney. It is one of most important conditions for correct opperation of the stove. Draft depends on chimney conditions and outside weather. One of most easiest ways to check the quality od chimney draft is to use a candle like it is shown on picture below. Put the flame close to chimney inlet and if the flame is mowing torward chimney draft is suitable (picture b). If the flame is moving poorely than you should check the reasons for eventual lacks.

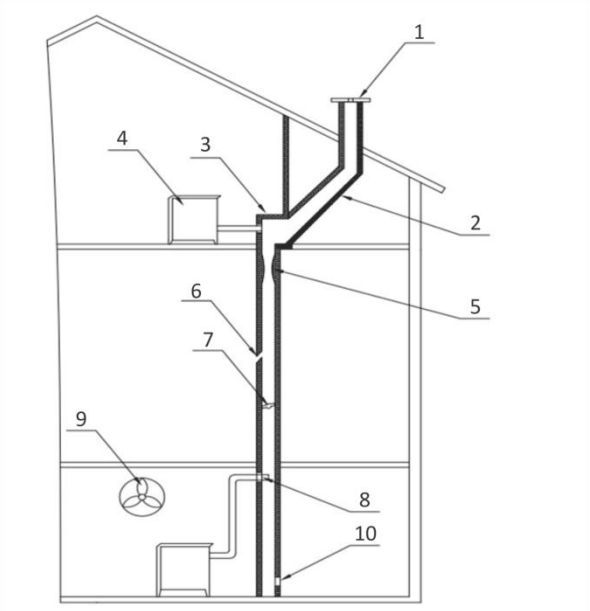


Picture a.



Picture b

If the draft in the chimney is to bad (Picture 2a), please check the chimney. Cimney should be inside building. If it is outside the hous e, itshould be insulated in propper way.



Lacks of the chimney could be:

1.Chimney is lower than roof top, outlet diameter is to small,
2. Inclination of the chimney is to big,
3. Smoke exhaust is build with angles which are preventing draft,
4.More than one stove is connected to same chimney,
5. Inside walls of the chimney are constricted,
6. Cracks on the chumney wall,
7. Obsticale of some kind which have felt in the chimney (fallen brick, bird...)
8. Inlet tube is pushed to deep inside the chimney,
9. Ventilator or some other divice is making bad pressure in the room
10. Cleaning doors on chimney are open

With the stove you get and the power cord. Stove is connected to the power source voltage of 230V and 50Hz. Stove must be connected only to the required socket. Figure 5 shows how the stove is connected to a power source. Before plugging in the cable, check if the main switch is set to the position 0.Note that the power cord is not damaged. Cable must be disconnected from the heat source. First, turn the cable into the stove to the required space and then into a power socket.

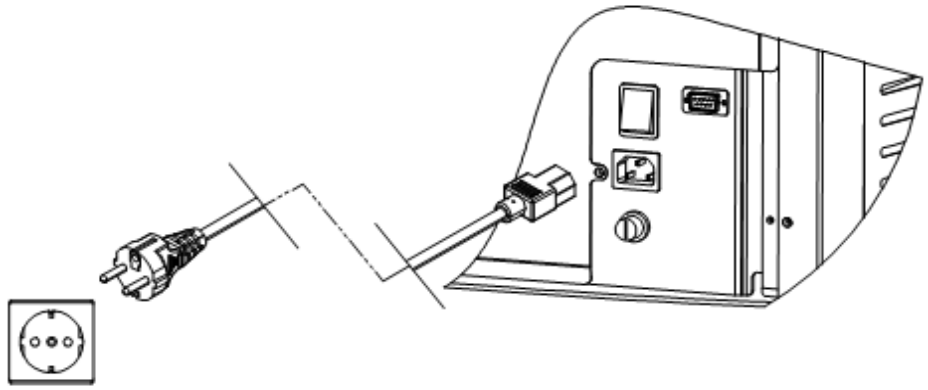


Figure 5. Connecting the stove to power source

When connecting the stove follow the instruction in ANNEX A and ANNEX B at the end of this manual.

NOTE: This model have circulation pump. There are circulation pump, expansive tank, automatic air vent and safety valve included in this stove.

6. DISPLAY AND REMOTE CONTROLL

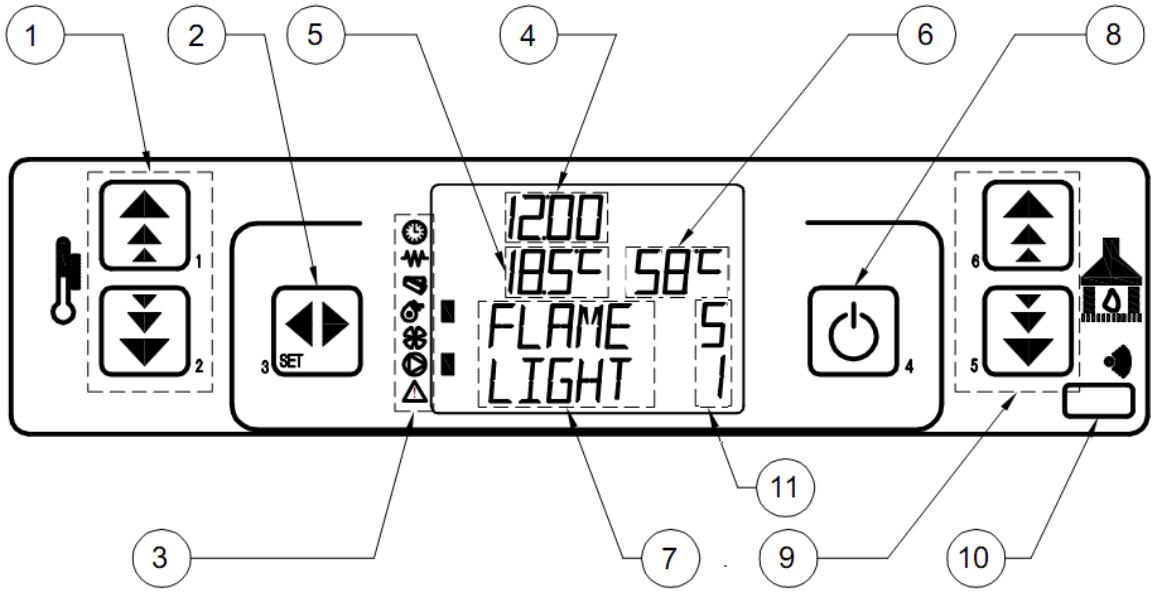


Image 6. Represents a display

On display there are 6 keys which are being used for managing different functions of the stove. In the middle, there is a display where is being shown a basic information about the stove operation.

1. Temperature setting keys
2. Main menu entering keys
3. Indicators of the stove parts
4. Time display
5. Room temperature display
6. Boiler temperature display
7. Modes of operation
8. On/Off switch, exit key
9. Operation mode settings
10. Sensor of remote control
11. Operation mode (UP – given mode, DOWN –current mode)

6.1. Symbols of the basic elements of stove

Next to each symbol, there is the indicator light showing which of the element is currently on. Beside of the symbols for the pellet, the indicator will be periodically turned on and off depending on whether the engine for the insertion of pellets is on or off. Description of symbols is given in Table 2.

	Timer indicator (turning the on and off according to a selected program)
	Heater indicator for burning the pellet
	Engine for pellet insertion indicator
	Emissions fan indicator
	Blower indicator
	Water pump indicator
	Warning indicator (the stove operate in incorrect way)

Table 2. Symbols on the display

6.2. Remote control

With a remote control, a battery will not be delivered. In order to use the remote control you need do buy a battery of 12V, P23GA type. Image 7 represents a remote control and a battery.

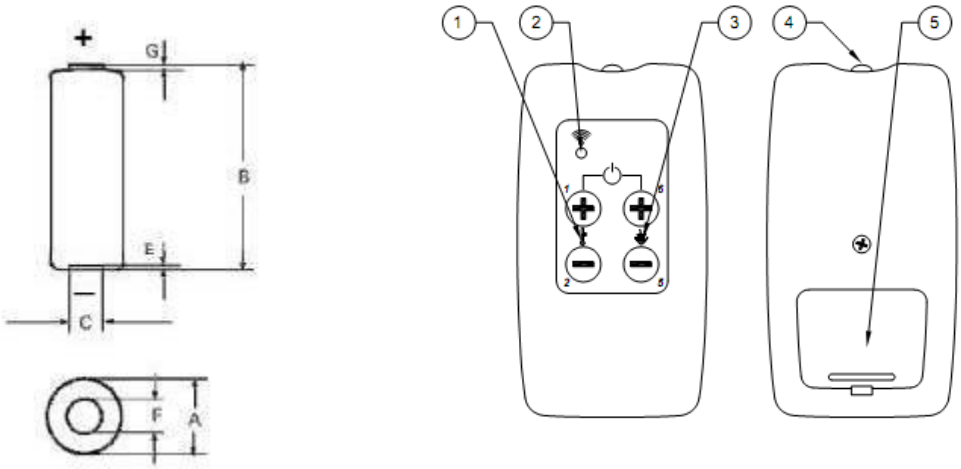


Image 7. Battery and a remote control (1 - temperature setting buttons, 2 – remote control indicator, 3 – mode keys, 4 - transmitter, 5 -cover)

Take off the cover and set the battery according to the symbols indicated in the bottom of the remote. Symbol **+** goes with a **+** on the battery.

Pressing the buttons 1 and 6 at the same time turns stove **ON** and **OF**.

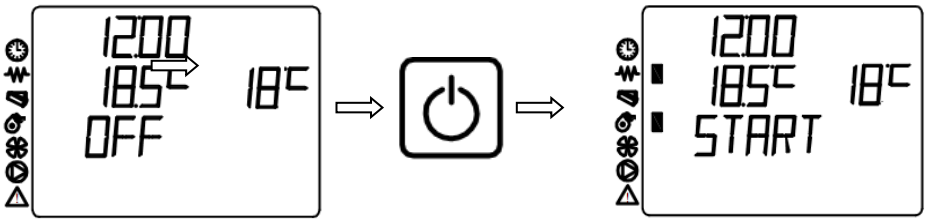
Pressing the buttons 1 and 2 is being set a wanted temperature. Buttons 5 i 6 are there for mode settings. Settings of temperature and mode are described accurately in the chapter "**USING** THE STOVE".

7. USINGTHE STOVE

Keep to this Manual so your stove could last longer and to avoid unnecessary costs. Before starting, check if stove is well connected to power source and to an chimney. Also, check connections to a indoor central heating (in case that stove is connected to a fresh air ventilation system, check that connection also). To turn on the stove, it is also necessary to change the main switch from position 0 to position 1.

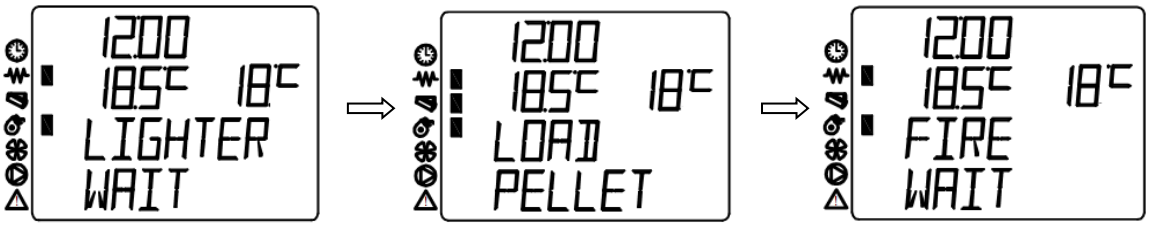
7.1. Turning ON and turning OFF the stove

The stove is being turned on and off on button 4. Keep pressing the button until on display does not appear START.



When starting the stove display will show the indicators of the elements currently on. Exhaust fan will run until the stove is turned on, even after turning it off it will continue running for some more time.

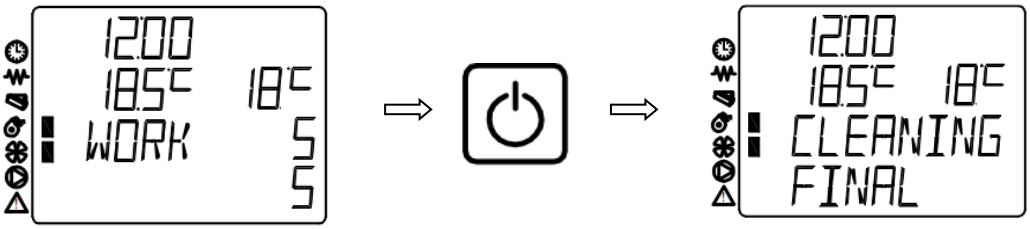
The next displayed message will be LIGHTER WAIT, indicating that the lighter is ON and that it's being warmed up in order to get the pellets inflamed. Stove will load the amount of pellets needed for the initialization, which will be followed by a message LOAD PELLET. The indicator for the throw- in of pellets will be on only when the engine for pellet throw- in is on.



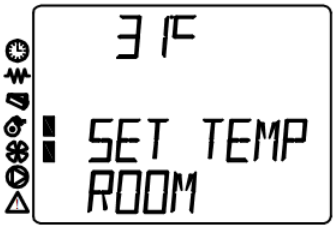
Alternately will rotate messages LOAD PELLET and WAIT FIRE until the temperature of exhaust gases does not exceed 40°C, which is necessary in order to detect the flame and for stove to start working. The maximum time required to reach 40°C is 25 minutes. There will be displayed a message FLAME LIGHT. When a Flame is detected, the stove shuts down the lighter. Mode will be accompanied by a Message WORK.

Periodically, stove is cleaning a pellet burning pot which is indicated with message **CLEANINIG FIRE-POT**. Time period between two cleanings is deppending on model of a pellet stove.

During the turnig the stove **OFF**, press the button 4 and keep it pushed antil **CLEANING FINAL** appears. Water pump will work until wáter temperature in boiler decrease to 52 °C. After some time, sign **OFF** will apear on display which means that stove is turned off.

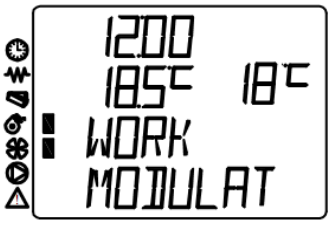


7.2. Temperature and mode settings

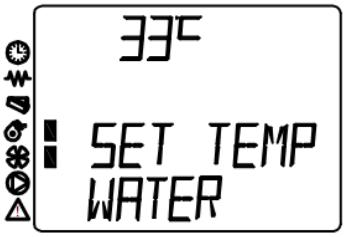


Setting the required temperature is done by pressing the key 2. The stove will heat up to that temperature and then keep maintaining the same. Setting is made by pressing the key 2 briefly and then pressing the button 1 or 2 to increase or decrease the required temperature. This action will be followed by the display message SET TEMP ROOM. The temperature can be changed in a rangefrom 7 to 40 ° C.

Setting the operation mode of the stove is done by pressing the key 6. Operating mode can be changed from P1 to P5. Operating modes can be changed by pressing keys 5 and 6, which will be followed by the display message SET OUTPUT. The higher operating mode is, quicklier the stove will reach the reqired temperature, after which it will switch to WORK MODULAT, which means that the stove has reached the set temperature and now it will maintain the temperature in a lower mode.



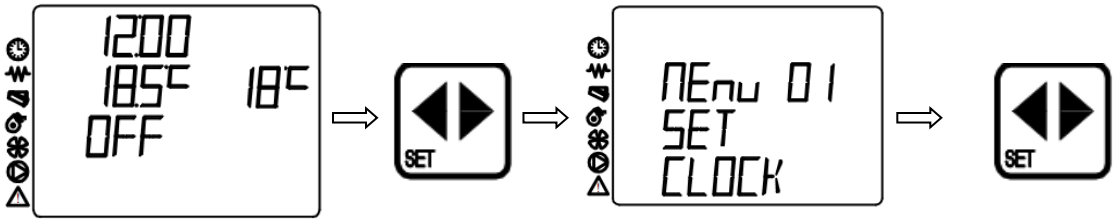
Setting the water temperature in the boiler is done by pressing the key 1. The furnace will heat up to that temperature and then maintain the same temperature. Setting is done by pressing the key 1 briefly and then pressing the key 1 or 2 to increase or decrease the required water temperature. This action will be followed by the display message SET TEMP WATER. The temperature can be changed in a range from 20 to 80 ° C.



8. SETTINGS

8.1. Clock settings

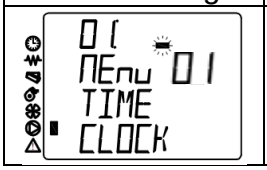
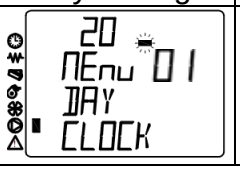
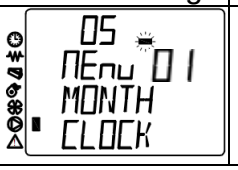
Clock setting is being done in following way. Press the key 3 (set), after what there will be displayed a message **menu 01 SET CLOCK** afterwards, press again the key 3 (set), in order to access the clock setting menu.



The display will show the following message **menu 01** and written below will be a day that is currently set. . Lighted setup indicator will start to blink. With pressing the keys 1 and 2 you may change days as it's shown below:

MONDAY -
TUESDAY -
WEDNESDA -
THURSDAY -
FRIDAY -
SATURDAY -
SUNDAY -

After the days in a week, with pressing the key 5 settings will change in a following order: Hour setting, minutes, days in a month, months and years. Parameter setting are being done by pressing the keys 1 i 2. This is how a display is supposed to look like.

Hour setting	Minute setting	Day setting	Month setting	Year setting
				

With pressing a key 6, you can always step back. To exit the clock settings press key 4 twice.

8.2. Timer settings

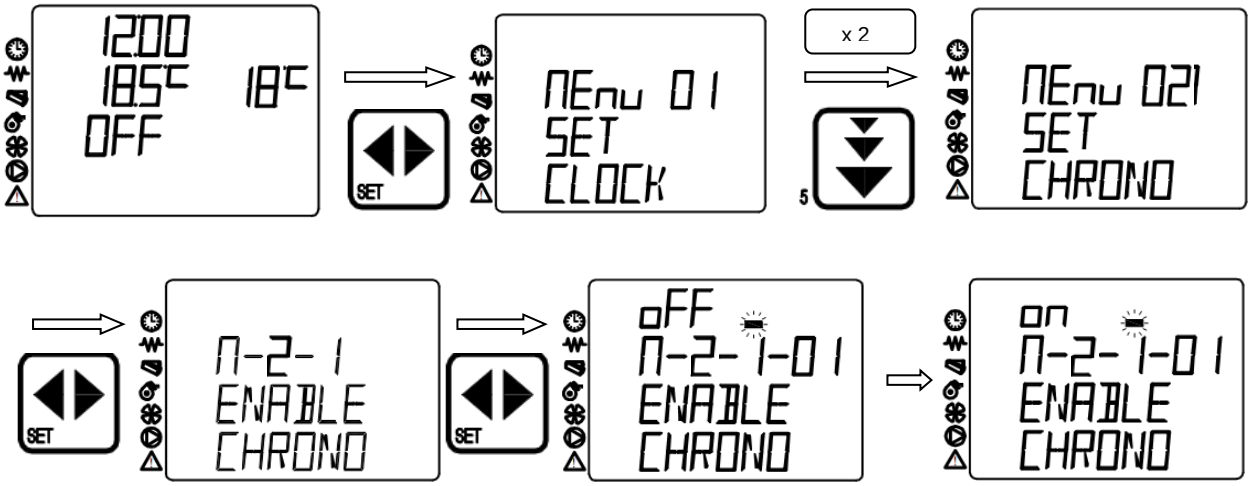
There are three kinds of timer settings:

- Daily - allows the stove itself on and off 2 times during the day
- Weekly - allows the stove is programmed to be 4 times during the day to include and exclude seven days a week
- Weekend setting - allows the stove twice and switched off during Saturday and Sunday.

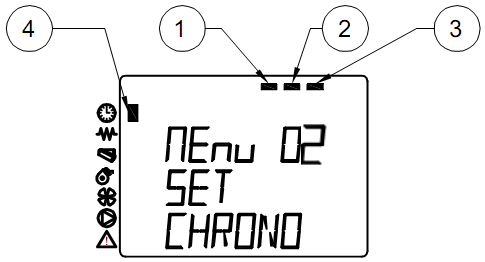
8.2.1. How to turn the timer on

The timer is activated always in the same way no matter which type of the setting is active (daily, weekly or weekend program). The timer is getting active in a following way:

Press the key 3 (set), after what a display will show a message **menu 01 ST CLOCK**. Then press the key 5 twice and there will be displayed the message **menu 02 SET CHRONO**. Pressing the key 3 (set) you will access the timer setting menu therefore attimer starting menu. On display there is a message **m-2-1 ENABLE CHRONO**. Then again press the key 3 (set) and a message will appear: **off m-2-1-01 ENABLE CHRONO**, which means that the timer is turned off, and setting indicator will continue blinking. Pressing the keys 1 or 2 you're switching the timer from **OFF** to **ON.**



After switching the timer on display will show up the indicators that show what type of programming is active (daily, weekly, weekend) and the indicator next to the clock symbol which shows that the timer is turned on. Appearance of the signs and indicators are given in the following figure.



1 - Daily programming indicator
2 - Weekly programming indicator
3 - Weekend programming indicator
4 - Timer indicator

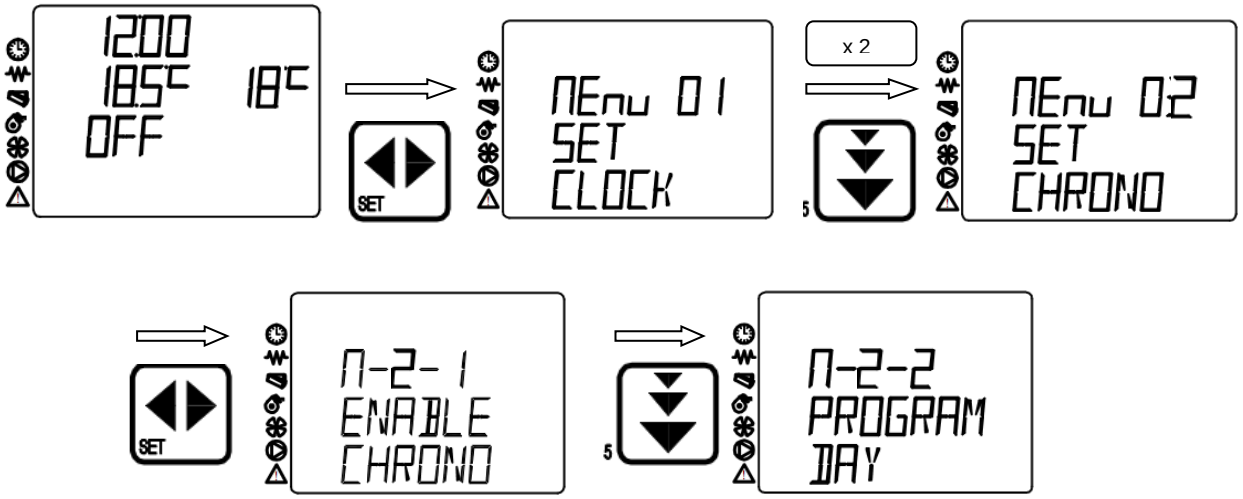
To exit the timer setting press the key 4 twice.

8.2.2. Daily programmer

NOTE: Make sure that the starting up and shutting down time does not overlap. It isalso necessary to pay attention that between this two processes pass at least 30 minutes.

During the daily programming you can set two starting ups and two shutting downs of the system.

Press the key 3 (set), afterwards there will be displayed **menu 01 SET CLOCK**. Then press the key 5 twice to get the message **menu 02 SET CHRONO**. Pressing the key 3 (set) you access the timer setting menu, and consequently in the menu foe turning the timer on. On display will show **m-2-1 ENABLE CHRONO**. Then again presses the key 5 and the on display will show up the message **m-2-2 PROGRAM DAY.**

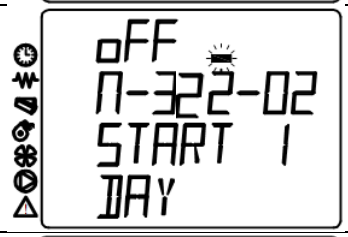
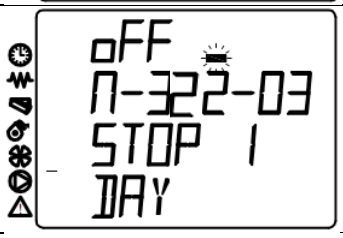
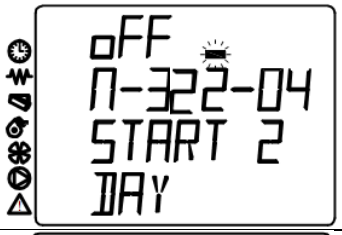
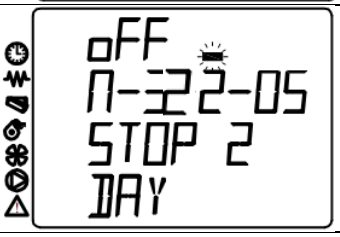


Afterward, pressed the key 3 (set) and there will be displayed **off m-2-2-01 CHRONO DAY**. With the keys 1 and 2 switch the on command, in order to activate a daily timer. Use the keys 5 and 6 to scroll through menus, and the keys 1 and 2 to change the parameters. The menu is shown in the following table. Time can be set in intervals of 10 minutes.

To exit the timer setting press the key 4 twice.

SETTING EXAMPLE: The stove is starting up at 6 am and turning off at 8 am, the next starting is at 2 pm and turning off in 10:30 pm. Parameters need to be set according to a following table.

m-3-2-01 CHRONO DAY	on
m-3-2-02 START 1 DAY	06:00
m-3-2-03 STOP 1 DAY	08:00
m-3-2-04 START 2 DAY	14:00
m-3-2-05 STOP 2 DAY	22:30

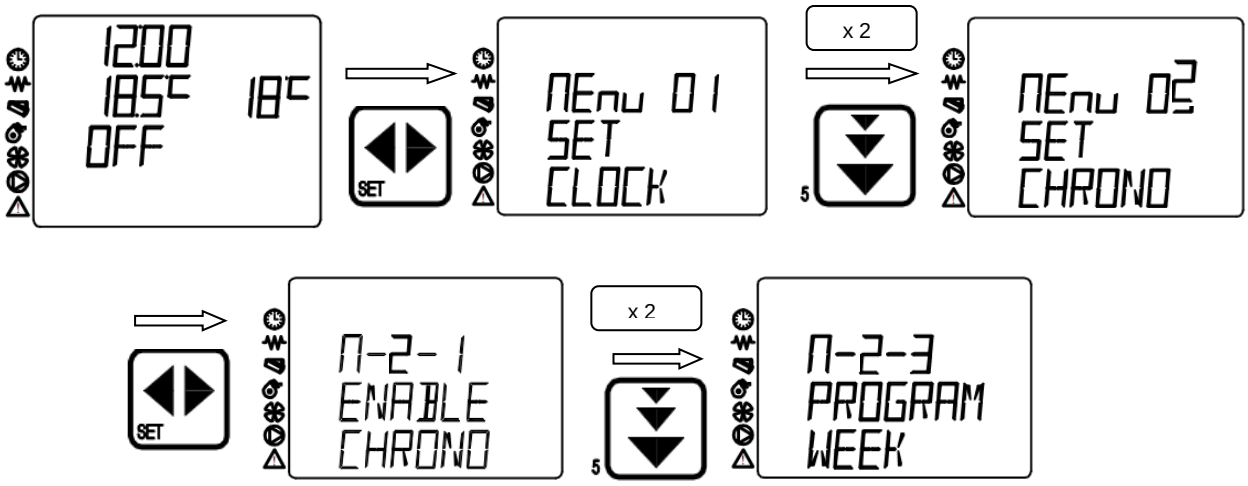
MENU	SETING OPTIONS	DISPLAY APPEARANCE
m-2-2-01 CHRONO DAY	off/on	
m-2-2-02 START 1 DAY	off/00:00-23:50	
m-2-2-03 STOP 1 DAY	off/00:00-23:50	
m-2-2-04 START 2 DAY	off/00:00-23:50	
m-2-2-05 STOP 2 DAY	off/00:00-23:50	

8.2.3. Weekly programming

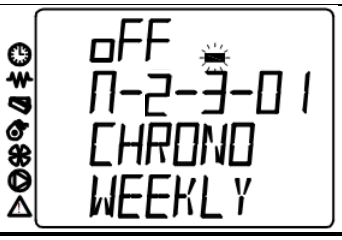
NOTE: Make sure that the starting up and shutting down time does not overlap.It is also necessary to pay attention that between this two processes pass at least 30 minutes.

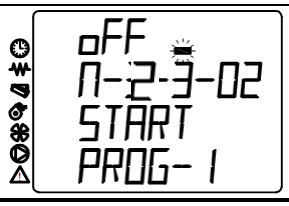
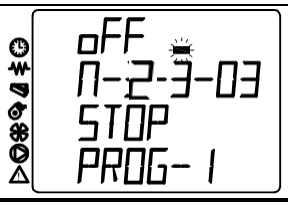
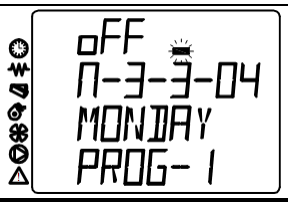
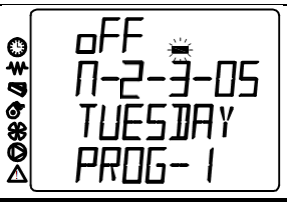
During the daily programming you can set four starting ups and four shutting downs of the system. Also you may set the activation of the specific program for a specific day.

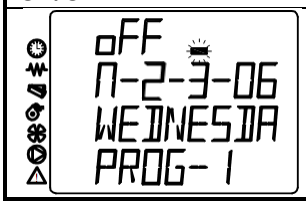
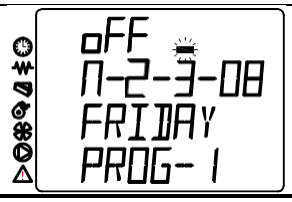
Press the key 3 (set) and you will get a displayed message **menu 01 SET CLOCK**. Afterward you need to press the key 5 twice, and on display will be written **menu 02 SET CHRONO**. Pressing the key 3 (set) you access the timer setting menu, and consequently in the menu for turning the timer on. On display will show up **m-2-1 ENABLE CHRONO**. Then again press the key 5 twice and the display will show **m-2-3 PROGRAM WEEK.**

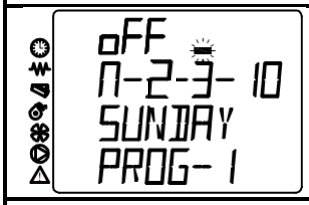
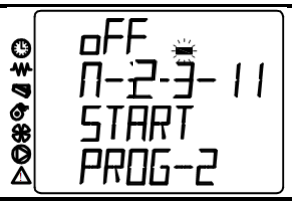
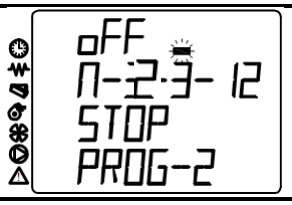
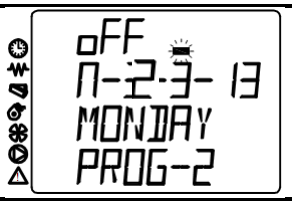
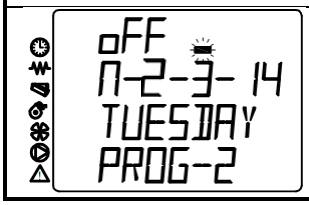
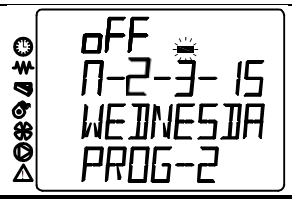


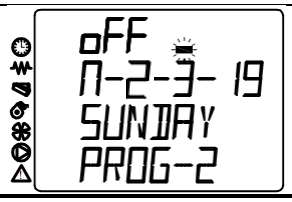
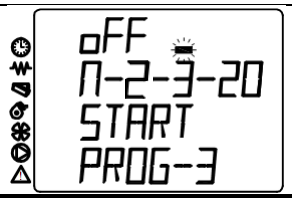
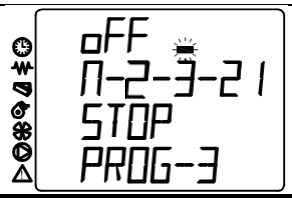
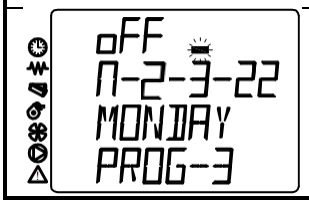
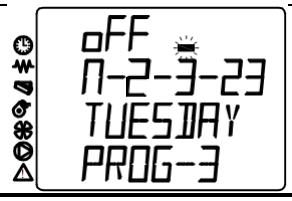
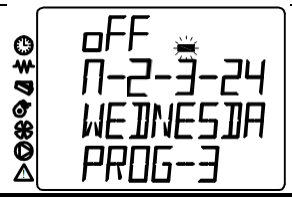
Press the key 3 (set) and you will get a displayed message **off m-2-3-01 CHRONO WEEKLY.** With the keys 1 and 2 switch the program to on in order to activate a weekly timer. Use the keys 5 and 6 to scroll through menus, and the keys 1 and 2 to change the parameters. The menu is shown in the following table. Time can be set in intervals of 10 minutes.

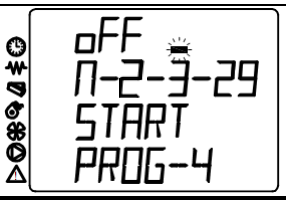
MENU	SETING OPTIONS	DISPLAY APPEARANCE
m-2-3-01 CHRONO WEEKLY	on/off	

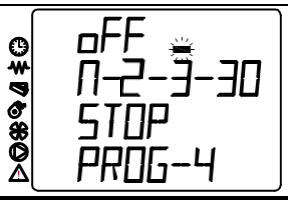
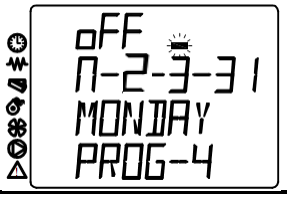
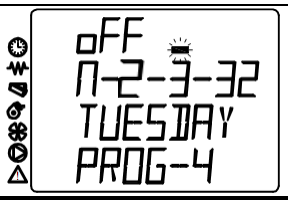
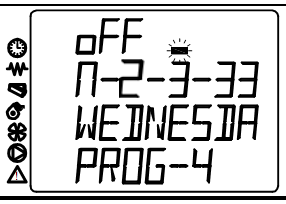
m-2-3-02 START PROG-1	m-2-3-03 STOP PROG-1	m-2-3-04 MONDAY PROG-1	m-2-3-05 TUESDAY PROG-1
off/00:00-23:50	**off/00:00-23:50**	**on/off**	**on/off**
			

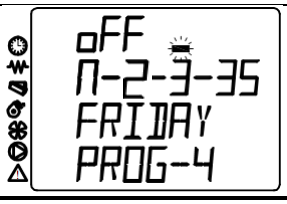
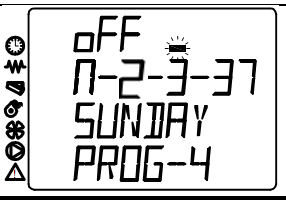
m-2-3-06 WEDNESDA PROG-1	m-2-3-07 THURSDAY PROG-1	m-2-3-08 FRIDAY PROG-1	m-2-3-09 SATURDAY PROG-1
on/off	on/off	on/off	on/off
			

m-2-3-10 SUNDAY PROG-1	m-2-3-11 START PROG-2	m-2-3-12 STOP PROG-2	m-2-3-13 MONDAY PROG-2
on/off	off/00:00-23:50	off/00:00-23:50	off/on
			
m-2-3-14 TUESDAY PROG-2	m-2-3-15 WEDNESDA PROG-2	m-2-3-16 THURSDAY PROG-2	m-2-3-17 FRIDAY PROG-2
off/on	off/on	off/on	off/on
			

m-2-3-18 SATURDAY PROG-2	m-2-3-19 SUNDAY PROG-2	m-2-3-20 START PROG-3	m-2-3-21 STOP PROG-3
off/on	off/on	off/00:00-23:50	off/00:00-23:50
			
m-2-3-22 MONDAY PROG-3	m-2-3-23 TUESDAY PROG-3	m-2-3-24 WEDNESDA PROG-3	m-2-3-25 THURSDAY PROG-3
off/on	off/on	off/on	off/on
			

m-2-3-26 FRIDAY PROG-3	m-2-3-27 SATURDAY PROG-3	m-2-3-28 SUNDAY PROG-3	m-2-3-29 START PROG-4
off/on	off/on	off/on	off/00:00-23:50
			

m-2-3-30 STOP PROG-4	m-2-3-31 MONDAY PROG-4	m-2-3-32 TUESDAY PROG-4	m-2-3-33 WEDNESDA PROG-4
off/00:00-23:50	off/on	off/on	off/on
			

m-2-3-34 THURSDAY PROG-4	m-2-3-35 FRIDAY PROG-4	m-2-3-36 SATURDAY PROG-4	m-2-3-37 SUNDAY PROG-4
off/on	off/on	off/on	off/on
			

SETTING EXAMPLE: The stove is starting up at 6 am and turning off at 8 am on Monday, Tuesday, Friday. The next starting is at 5:30 minutes and turning off at 10 am on Wednesday and Thursday. The third starting up is every day except Saturday and Sunday from 5 pm and turning off at 10 pm. On Saturday and Sunday are the stove is starting up at 8 am and turning off at 11pm. Parameters should be adjusted according to the following tables.

m-2-3-01 CHRONO WEEKLY	on
m-2-3-02 START PROG-1	06:00
m-2-3-03 STOP PROG-1	08:00
m-2-3-04 MONDAY PROG-1	on
m-2-3-05 TUESDAY PROG-1	on
m-2-3-06 WEDNESDA PROG-1	off
m-2-3-07 THURSDAY PROG-1	off
m-2-3-08 FRIDAY PROG-1	on
m-2-3-09 SATURDAY PROG-1	off
m-2-3-10 SUNDAY PROG-1	off

m-2-3-11 START PROG-2	05:30
m-2-3-12 STOP PROG-2	10:00
m-2-3-13 MONDAY PROG-2	off
m-2-3-14TUESDAY PROG-2	off
m-2-3-15 WEDNESDA PROG-2	on
m-2-3-16 THURSDAY PROG-2	on
m-2-3-17 FRIDAY PROG-2	off
m-2-3-18 SATURDAY PROG-2	off
m-2-3-19 SUNDAY PROG-2	off

m-2-3-20 START PROG-3	17:00
m-2-3-21 STOP PROG-3	22:00
m-2-3-22 MONDAY PROG-3	on
m-2-3-23TUESDAY PROG-3	on
m-2-3-24 WEDNESDA PROG-3	on
m-2-3-25 THURSDAY PROG-3	on
m-2-3-26 FRIDAY PROG-3	on
m-2-3-27 SATURDAY PROG-3	off
m-2-3-28 SUNDAY PROG-3	off

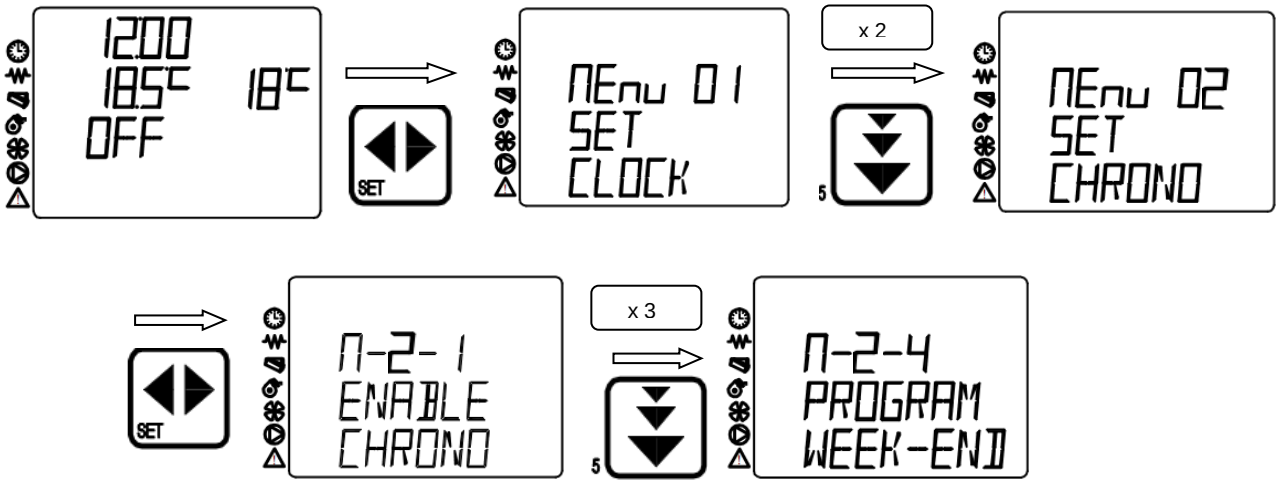
m-2-3-29 START PROG-4	08:00
m-2-3-30 STOP PROG-4	23:00
m-2-3-31 MONDAY PROG-4	off
m-2-3-32TUESDAY PROG-4	off
m-2-3-33 WEDNESDA PROG-4	off
m-2-3-34 THURSDAY PROG-4	off
m-2-3-35 FRIDAY PROG-4	off
m-2-3-36 SATURDAY PROG-4	on
m-2-3-37 SUNDAY PROG-4	on

8.2.4. Weekend programming

NOTE: *Make sure that the starting up and shutting down time does not overlap. It is also necessary to pay attention that between this two processes pass at least 30minutes.*

During the daily programming you can set two starting ups and two shutting downs of the system.. When the weekend programming is active, it is considered that the starting up and turning off time is the same even on Saturday and Sunday.

Press the key 3 (set) and you will get a displayed message **menu 01 SET CLOCK**. Afterward you need to press the key 5 two times, and on display will be written **menu 02 SET CHRONO**. Pressing the key 3 (set) you access the timer setting menu, and consequently in the menu for turning the timer on. On display will show up **m-2-1 ENABLE CHRONO**. Then again presses the key 5 three times and the on display will show up the message **m-2-4 PROGRAM WEEK-END.**



Once again, press the key 3 (set) and you will get a displayed message **off m-2-4-01 CHRONO WEEK-END.** With the keys 1 and 2 switch the program to on in order to activate a weekly timer. Use the keys 5 and 6 to scroll through menus, and the keys 1 and 2 to change the parameters. The menu is shown in the following table. Time can be set in intervals of 10 minutes.

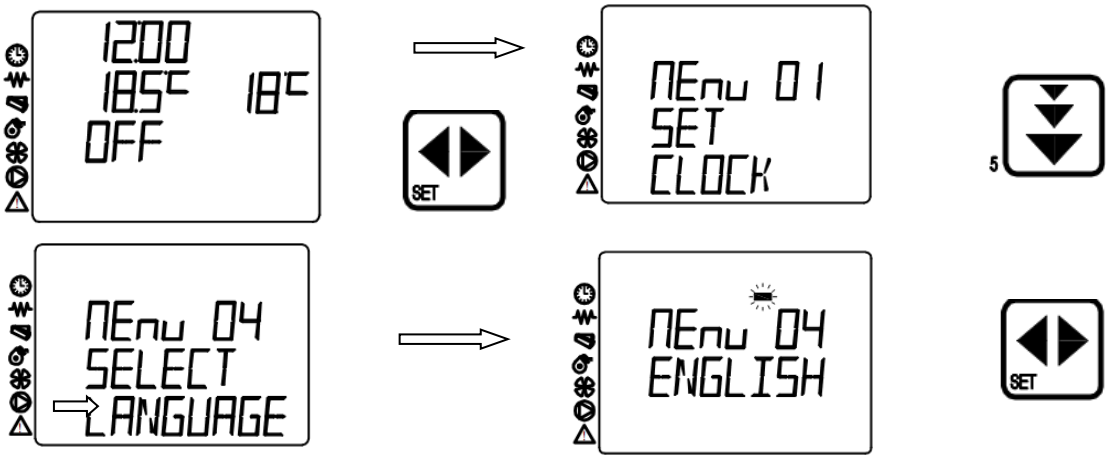
To exit the timer setting press the key 4 twice.

SETTING EXAMPLE: The stove is starting up at 8 am and turning off at 5 pm. The next starting is at 8 pm and turning off at 11:30 pm. Parameters need to be set according to a following table.

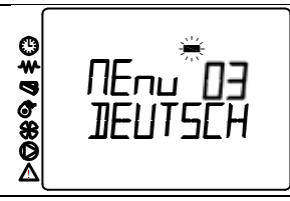
m-2-4-01 CHRONO WEEK-END	on
m-2-4-02 START 1 WEEK-END	08:00
m-2-4-03 STOP 1 WEEK-END	17:00
m-2-4-04 START 2 WEEK-END	20:00
m-2-4-05 STOP 2 WEEK-END	23:30

8.3. Language settings

There are four languages that can be set: English, Italian, French and German. Languages are being set by pressing the key 3 (set) and you will get a displayed message **menu 01 SET CLOCK**. Afterward you need to press the key 5 three times, and on display will be written **menu.04 SELECT LANGUAGE.** Pressing the key 3 (set) you access the language setting menu, and display will be written in language which is currently on. For example menu.04 ENGLISH



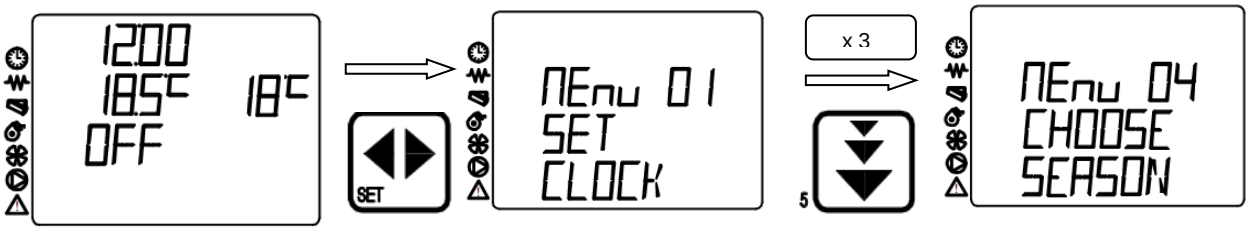
Language is being changed by pressing the keys 1 and 2. The default language is English. The look of the display for a particular language is given in the following table.

English	Italian	French	German
			

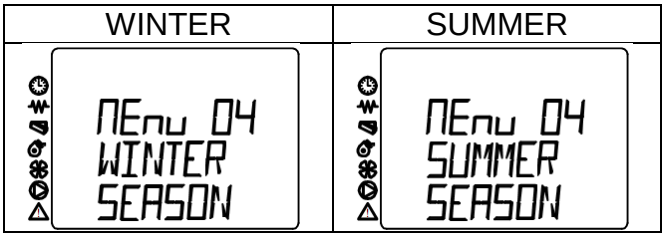
To exit the timer setting press the key 4 twice.

8.4. Seasonal settings

Having in mind that water in boiler is already hot you should consider the option of using this stove in winter and summer contiotions. To set the season press the key 3 (set) and display wil show **menu 01 SET CLOCK**. Afterward you need to press the key 5 four times, and on display will be written **menu 04 CHOOSE SEASON**. Pressing the key 3 (set) you access the SEASON MODE, current season setting will apper on display.



Setting of seasons si regulated with keys 1 or 2.



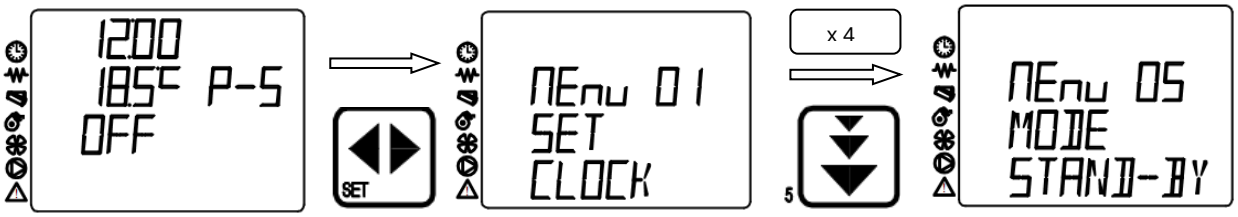
To exit the timer setting press the key 4 twice.

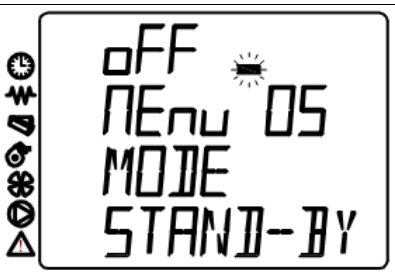
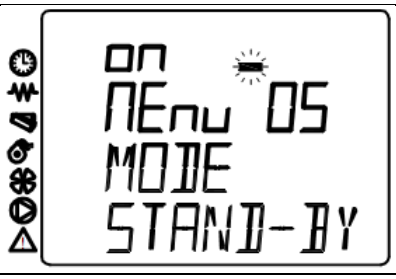
NOTE: During starting the stove display could show : WAIT COOLING. If that is the case check if the season is correct.

8.5. STAND-BY mode

STAND-BY mode is being used to sett up the stove in order to reduce an unnecessary use of the fuel. It's function is to turn off the stove automatically, as soon as the required temperature has been achieved. Stand-by mode is set in the way that as soon as the difference in a temperature is higher than 2°C, the stove is automatically turning off. When the temperature gets under the required one for 2°C the stove is automatically turning on again. Thanks to this mode it's possible to save a significant quantities of fuel . STAND-BY mode is originally set to work with a difference of 2°C from selected temperature, you just need to turn on or of this mode.
.

Turning on stand-by mode is performed as follows. Press the key 3 (set) and you will get a displayed message **menu 01 ADJUST BLOWERS**. Afterward you need to press the key 5 four times, and on display will be written **menu 05 MODE STAND-BY**. Pressing the key 3 (set) you access the STAND-BY MODE menu, and consequently in the menu for turning the mode on. Turn the mode ON or OFF by pressing the keys 1 and 2.



STAND-BY mode is ON	STAND-BY mode is OFF
	

To exit the timer setting press the key 4 twice.

When accessing the STAND-BY mode the display will present a following figure.

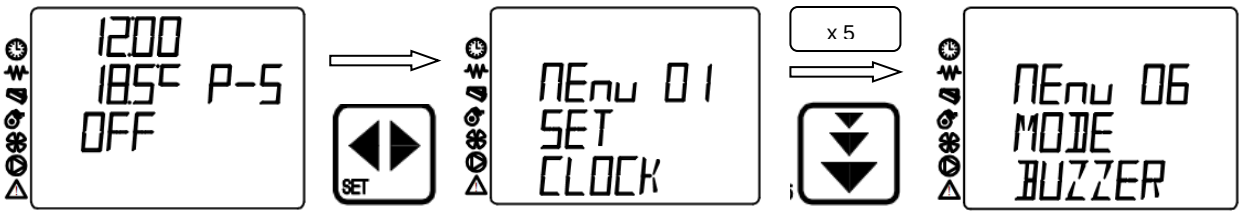
NOTE: Connecting to a room/ambiente thermostat is optional.

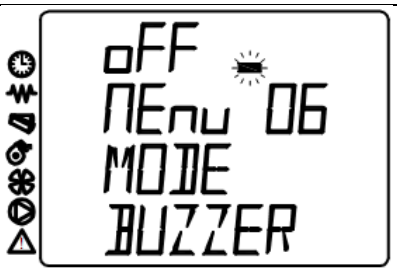
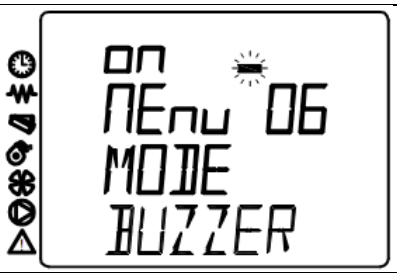
Connecting procedure is showed in ANNEX. During connecting you shoud disconnect thermostat at the back of the stove.

8.6. Sound alerts

Speaker serves to avert the malfunction of the alarm by beeping. The speaker can be turned on or off. Turning the speaker on is done as follow.

Press the key 3 (set) and you will get a displayed message menu 01 ADJUST BLOWERS. Afterward you need to press the key 5 five times, and on display will be written menu. 06 MODE BUZZER. Pressing the key 3 (set) you access the menu to enable or disable the speaker. Pressing the keys 1 or 2 you can turn on and off the speaker.



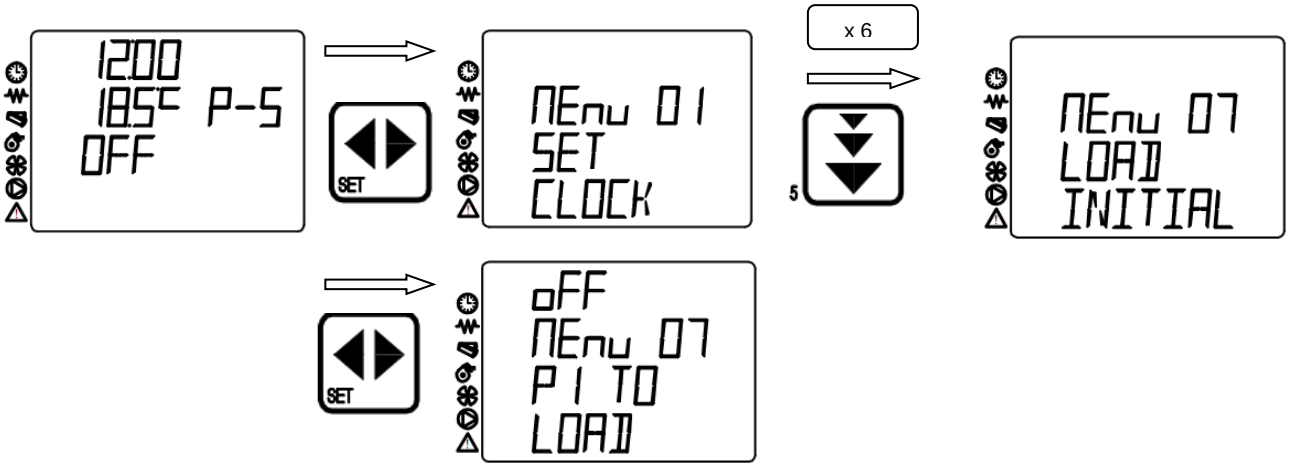
SPEAKER ON	SPEAKER OFF
	

To exit the timer setting press the key 4 twice.

8.7. Initial pellet loading

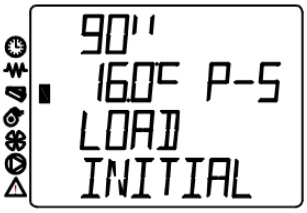
When the stove runs out of pellets, auger is empty, and if we fill storage with pellet, it takes some time to fill the dozer on the stove could start. When storage is empty **Alarm 6** appears which is described in chapter ERRORS.

After loading pellets into the storage, it is necessary to do the following:
Press the key 3 (set) and you will get a displayed message menu **01 ADJUST BLOWERS.** Afterward you need to press the key 5 six times, and on display will be written **menu 07 MODE LOAD INITIAL**. By pressing the key 3 (set),), you access the menu for the initial loading of pellets, after what will appear a message **off menu 07 P1 TO LOAD**, which means you have to press the key 1to begin charging a dozer. It takes arround 45 seconds to fill the dozer but it is best to stop charging once the first pellets is in the pot which is visually noticable.



The appearance of the display when you start inserting pellets is shown in the figure below. The countdown starts from 90 seconds back and down.

To stop loading pellets press the key 4.

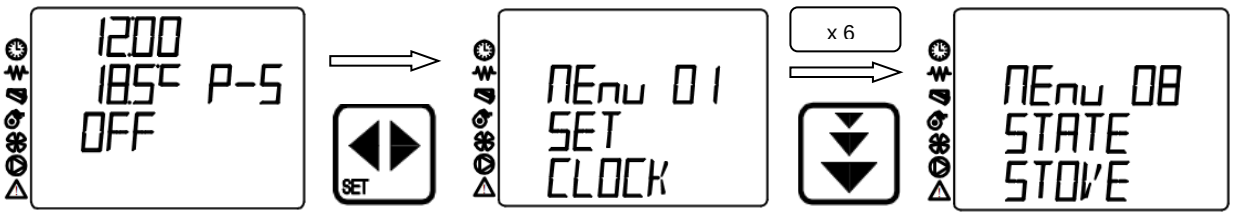


8.8. Information on the operation of the stove

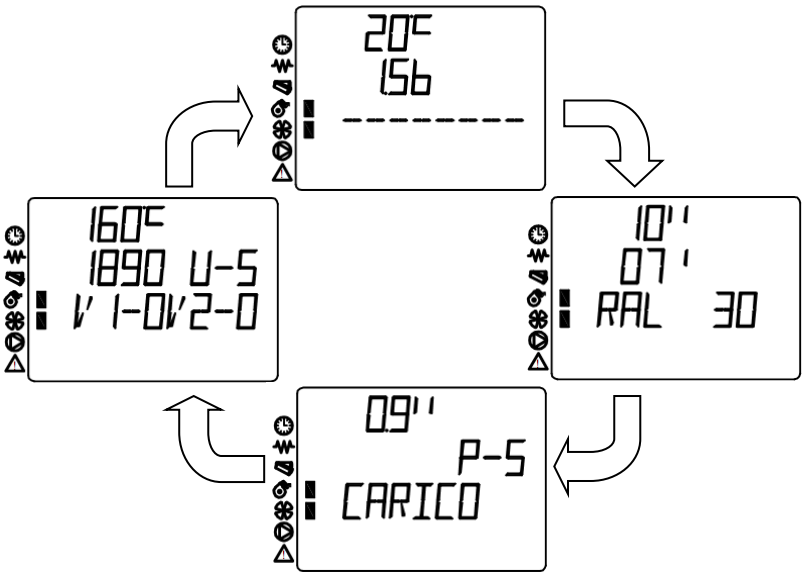
Information on the operation of the stove are useful because at any moment you can trace in what mode is the stove is operating, the temperature of exhaust gases, the fan speed, time remaining until the next action, etc.

To enter the menu, which monitors the stove modes you need to do next. Press the 3 (set), after which it will be displayed menu 01 messages ADJUST blowers.

Then press the button for 5 seven times, after you'll be shown the message menu 08 STATE STOVE.



Pressing 3 (set), you access the menu for print the messages about the stove status. Messages will be alternately changed. Order of printing and layout of thedisplay is shown in the figure below.



To exit this menu presses the key 4.

8.9 Technical settings

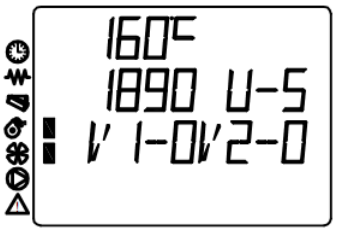
IMPORTANT !!!
This menu is reserved only for professionals trained to adjust the stove, and for the service. Any change in the parameters that was made by unauthorized persons will mean the loss of warranty !!!

9. OPERATION INFO

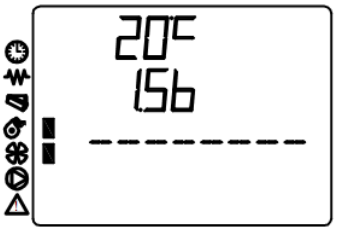
Status of stove operation can be verified with the help KEYS. Pressing this key is posible to see the current temperature of exhaust gases, stove operating modes, pellet insertion, the remaining time left untill next operation left.

Pressing and holding the help key 1 there will be shown the following screen layout. Here you can find information as well as the current pellet loading. Just by moving your finger of the key, the display will return to the main menu.

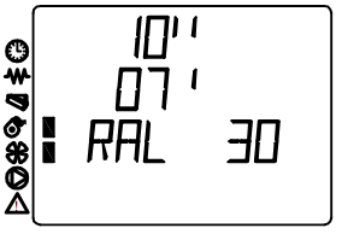
Pressing and holding the key 2, there will appear a following screen layout. Here you can find information about the temperature of exhaust gases, mode, stove, fan speeds for sewers and heat dissipation (optional). Just by moving your finger of the key, the display will return to the main menu.



Pressing and holding the key 5 you will get this screen layout.
This option is intended for stove for central heating, therefore in an ordinary stove has no purpose. Here you can find information on a selected water temperature, and pressure in the boiler. Just by moving your finger of the key, the display will return to the main menu.



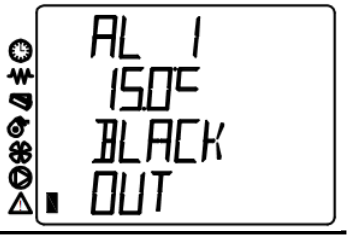
Pressing and holding the key 6 will get this screen layout. Here you can find information on time remaining until the next mode becomes active. Just by moving your finger of the key, the display will return to the main menu.



10. POTENTIAL ERRORS IN OPERATION

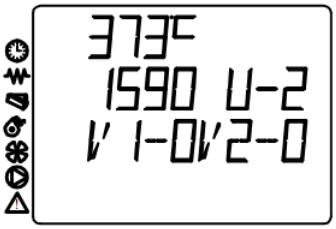
In each stove malfunction indicator will blink next to a warning sign and the stove will automatically stop working. There are several errors that can occur in stove operation, which will be described in detail below.

Error due the lack of electricity or forced disconecting form power source. Due the lack of electricity or forced disconecting form power source, opperation error will appear which will be indicated by

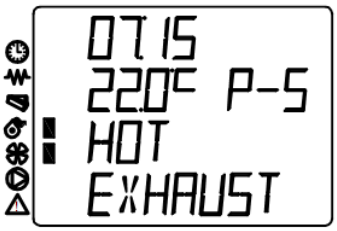


Error indication light. Mesagges **AL1 BLACK OUT** and **ALLARME ATTIVO** will be displayed.

Exhaust gases temperature measuring probe failure. If message **AL2 SONDA FUMI** appears**,** you should check whether the probe for measuring the temperature of exhaust gases is well connected. If the probe is discoinnected, call the sevice in charge to change it. The probe cannot be adjusted or reconnected.



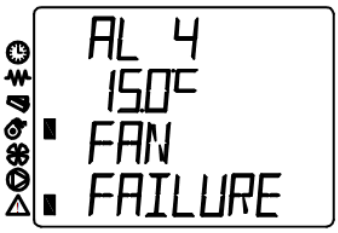
Also, the probe testing is done in the following way. Press key 2 and hold it untill the following screen layout shows: Number 373ºC indicates thet the probe for measuring exhausting gases is disfunctional or wrongly connected. For this kind of a problem, please call the service in charge.



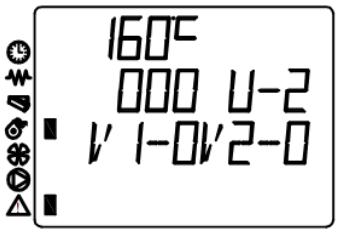
High temperature of exhausting gases. When the exhaust gases temperature exceeds a factory-set value, the following message appears on the screen HOT EXHAUST. The stove will automatically switch to lower operation mode and it will reduce the temperature of the exhaust gases. If this message appears too often call the service in charge. The stove can be used in lower operating modes those in which the message appeared previously.

Too high temperature of exhaust gases. If the exhaust gases' temperature is not lowered, and when the message HOT EXHAUSTis being displayed, the stove will continue working in a minimal regime until the temperature is lower than 280 ° C. If the temperature exceeds 280 ° C, the stove will report an error AL3 HOT SMOKE.

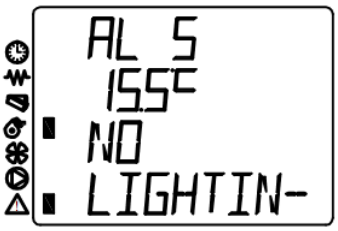
Error caused by malfunctioning of the fan exhaust gases fan.



The display message will appear as shown in the following figure (AL 4 FAN FAILURE) and alternately will be changed with a message that reports a malfunction (Allarme ATTIVO).
Error may occur due to a fan blocked or jammed, as well as due to a mulfunctioning of the contacts used for powering the fan or breakage of cables, which measure the numer of fan rotations. If this error occurs please contact the service in charge. Malfunction of the fan can be observed by pressing and holding the key 2, so that in the place where should be written a fan speed number, stands 000.



Error caused by inability to start the stove. The display message will appear as shown in the following figure (**AL 5 NO LIGHTIN-)** and alternately will be changed with a message that reports a malfunction (**Allarme ATTIVO**).



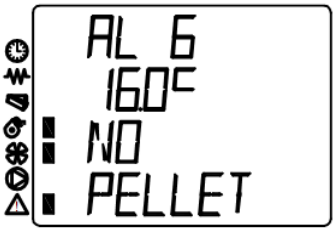
Error can occur due mulfunctioning of the probe that measures the temperature of exhaust gases, caused by low exhaust temperatures, insufficient quantity of pellets required for ignition or due to malfunction of a lighter.

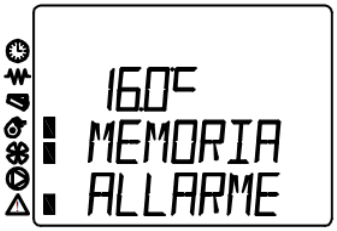
If the exhaust temperature of 40 ° C is not reached in 25 minutes, the stove will not start operating. Temperature of exhaust gases can be checked by holding the key 2. If the temperature is lower than the required one the stove will not be able to start operating. It is necessary to check whether there are enough pellets in the store, as well as checking if the exhaust gas probe is not interrupted. Possible flaw can be the malfunction of the lighter, or the dispenser might be stuck, which prevents insertion of pellets.

Check if pellets fall into the burner is only possible visually, by observing the tube through which the pellets fall into the burner, for about 60 seconds. If there is no insertion of pellets, it is either the storage is empty or the dozer is stuck. If dozer is try starting up the stove for several times. If you fail starting it that way, call the service in charge.

Malfunction of the lighter can be noticed when starting the stove there are no sparks or glowing pellets on sight. Sometimes it is possible to see incandescence of lighter also. In the case of malfunctioning lighter, the stove can be started with a hepo cube or gel for burning. Contact the service in charge as soon as possible.

Error due to emptying pellet's storage. The display message will appear as shown in the following figure (AL 6 NO PELLETS) and alternately will be changed with a message that reports a malfunction (MEMORIA ALARME).



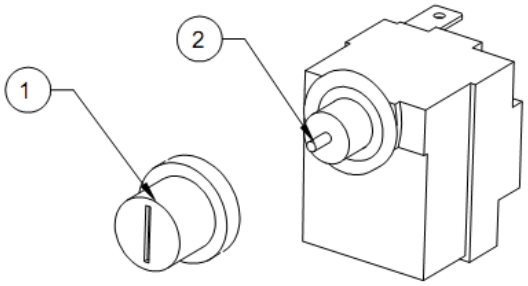


Cancel the alarm by pressing the key 4, wait for the stove to cool. Then, proceed according to instructions described in section 8.7 INITIAL PELLET LOADING and start the stove.

NOTE: This alarm can occur when pellet stucks du to inadequate size.

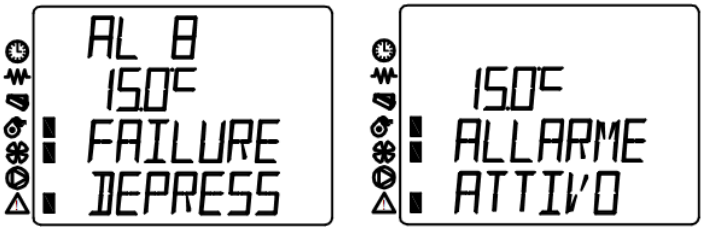
Error caused by malfunctioning of the safety thermostat. Safety thermostat serves to prevent that loaded in a storage goes on fire. When the safety thermostat is out of order, the display message will appear as shown in the following figure (AL 7 THERMAL SAFETY) and alternately will be changed with a message reporting a malfunction (**ALLARME ATTIVO**).

Unscrew the safety thermostat cover (1) and check whether the needle is (2) retracted or extended. If the needle is pulled out, push the pin and restart the stove. If the needle is retracted, or if it can not be retracted, and the stove is still reporting the same mistake call the service.



Error due to a mulfunction of safty-pressure controls.

Safety pressure switch is used to check the underpressure in a smoke drain. If the under pressure is insufficient the stove will stop working or it will not be able to start. When mulfunctioning of safety pressure controle is detected, the display message will appear as shown in the following figure (AL 8 **FAILURE DEPRESS**) and alternately will be changed with a message that reports a malfunction (**ALLARME ATTIVO**).

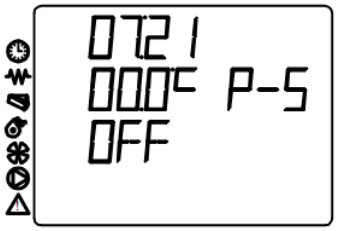


Malunctioning of the pressure switch can occur if the stove seal leaks, if the chimney or smoke drain are clogged, or if the fan speed is too low. In the event that the stove seal leaks, it is necessary to check that the door braids and the ashtray are well placed, that they are not accidentally stucked off etc. In case braids are placed correctly, please check the chimney. The chimney is checked by putting the flame close to the moke drain which is on the wall, and if the flame turns toward the smoke drain, that means that the chimney is in order, if it returnes to the room, or if it stays still, then the chimney is out of order. In this case, call the chimney sweep. How to clean the stove properly is described in the section maintenance.

Non-functional probe for measuring water temperature. In case of malfunction of the probe for measuring the water temperature, it is necessary to call a qualified technician. The probe must be immediately replaced so that the stove could regularly continue working.

Too high water temperature. In case this error occures it's necessary to shut down the stove and call the service technician to eliminate malfunction.

Non-functional probe for measuring the room temperature. In case of malfunction of the probe for measuring room temperature on display in place where the temperature should be indicated will be written 00.0oC. In case that the room temperature is acctualy 0 ° C, there will be written the same thing. Check if the temperature rises if the top of the probe is being held in a hand. If it doesn't, then the probe is out of order. In case of malfuntioning of the probe, please call the service in charge.



11. CLEANING AND MAINTAINANCE

During the daily and weekly cleaning, switch off the stove at the main switch, turning the switch to the position 0. When the stove is being completely cleaned it is necessary to stop any kind of power flow into it. The stove needs to be cleaned at least 30 minutes after arresting in order to avoid burns on contact with the hot parts of the stove.

When cleaning with a damp cloth or water, be careful not to get water to the electrical components of the stove and if that should happen, do not start the stove and call the service in charge.

When cleaning the oven avoid strong detergents and abrasives, as well as all products which contain benzene, alcohol, any acid or thinner.

Painted and plastic coated parts cleaned gently with a damp cloth, and use a mild detergent diluted with water.

Daily cleaning. By daily cleaning it's meant cleaning of glass parts and burning cup. Ashes that are contained in a cupmust be disposed far away from flammable items, in order to awoid some burning piece of pellet left. Make sure that all the holes that are in the cup are well cleaned. There can also be cleaned the firebox from the ashes. To clean the ashes from the firebox you can use the vacuum cleaner made appositly.

When cleaning the combustión cup it's necessary to take off the metal barrier, placed in the front part of the pot.

Take the pot off and clean in from the ashes. With a sharp object, klean all holes on the pot.

Glass parts must be cleaned only when the stove is completely cool. Glass parts must be cleaned with a dry cloth and if there are traces of soot or some other spots, they can be cleaned with a damp cloth, and then again rewiped with a dry cloth.

Weekly cleaning.
Beside daily cleaning you need to empty an ash tray, once in a week, or more frequenty if bigger quantity of pellet is being used.

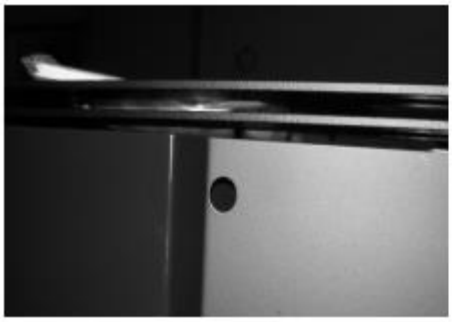
Monthly cleaning. It is necessary cleaning the stove completly once in a month and at the end of the heating season. If you use pellets of lower quality it may require more frequent cleaning. In addition to the instructions for weekly and daily cleaning, it is necessary to open the stove (behind the ashtray on the inspection opening where the fan of exhaust gases is placed and above the upper decorative panel) and clean it thorrowly.

Appearance of the stove when opening the inspection covers of the boiler.

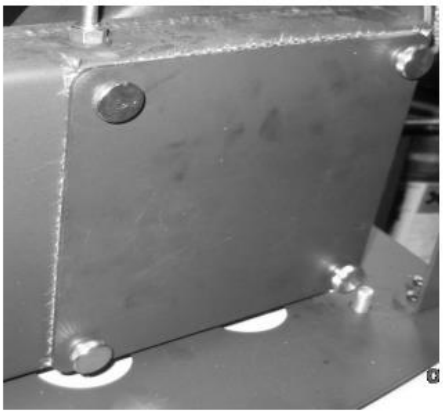
When cleaning inspection opening on the lid of the boiler, it is necessary to unscrew the 6 bolt head first, and then remove the cover of the inspection opening. Then remove the ash accumulated on the surface of the opening and clean the boiler tubes. This needs to be done first because the ash will fall into the chamber beneath the boiler.

For setting the lid, apply the procedure backwards.Watch out for the seal, which is located under the cover, in order to avoid possible damages.

Cleaning of the inspection opening is being done by removing an ashtrays and then loosening 4 screws that hold the cover. Remove the dust that has been accumulated behind the inspection opening and put everything on it's place. Pay attention to the seal which is attached to the cover.



For cleaning of the fan inspection opening it's necessary to remove the side panel, by loosening the screws on the rear side of the stove and bolts that are located on the side of the stove.



It'snecessary unloosing 4 screws that hold the cover. Remove the dust that has been accumulated behind the inspection opening and put back everything on it's place. Pay attention to the seal which is attached to the cover.

12. WARRANTY

Stove will work well only if you follow the given instructions. TIM SISTEM is obligated to provide spare parts and eliminate interference with the stove that are covered by this warranty within the time limit not exceeding 45 days from the date of defect report . If the defect is not corrected within 45 days, you have the right to a substitution for a new product.

The warranty is valid from the date of purchase, as evidenced by duly completed guarantee certificate, and the shop's receipt

The warranty for this product is 24 months.

TIM SISTEM is obliged to provide spare parts in due time after the stove is no longer produced.

This warranty does not cover damage caused by:

- inadequate use of stoves;
- violating the instructions given in this manual;
- mechanical damage incurred due to inadequate storage and transport;
- due to mechanical damage caused by kicking, tumbling;
- due to inadequate exposure to rain, snow etc.;
- due to chemical damage caused by exposure to inflammatory agents such as
- oil and oil products, alcohol, solvents, paints;
- due to natural disasters such as lightning, floods, fire;

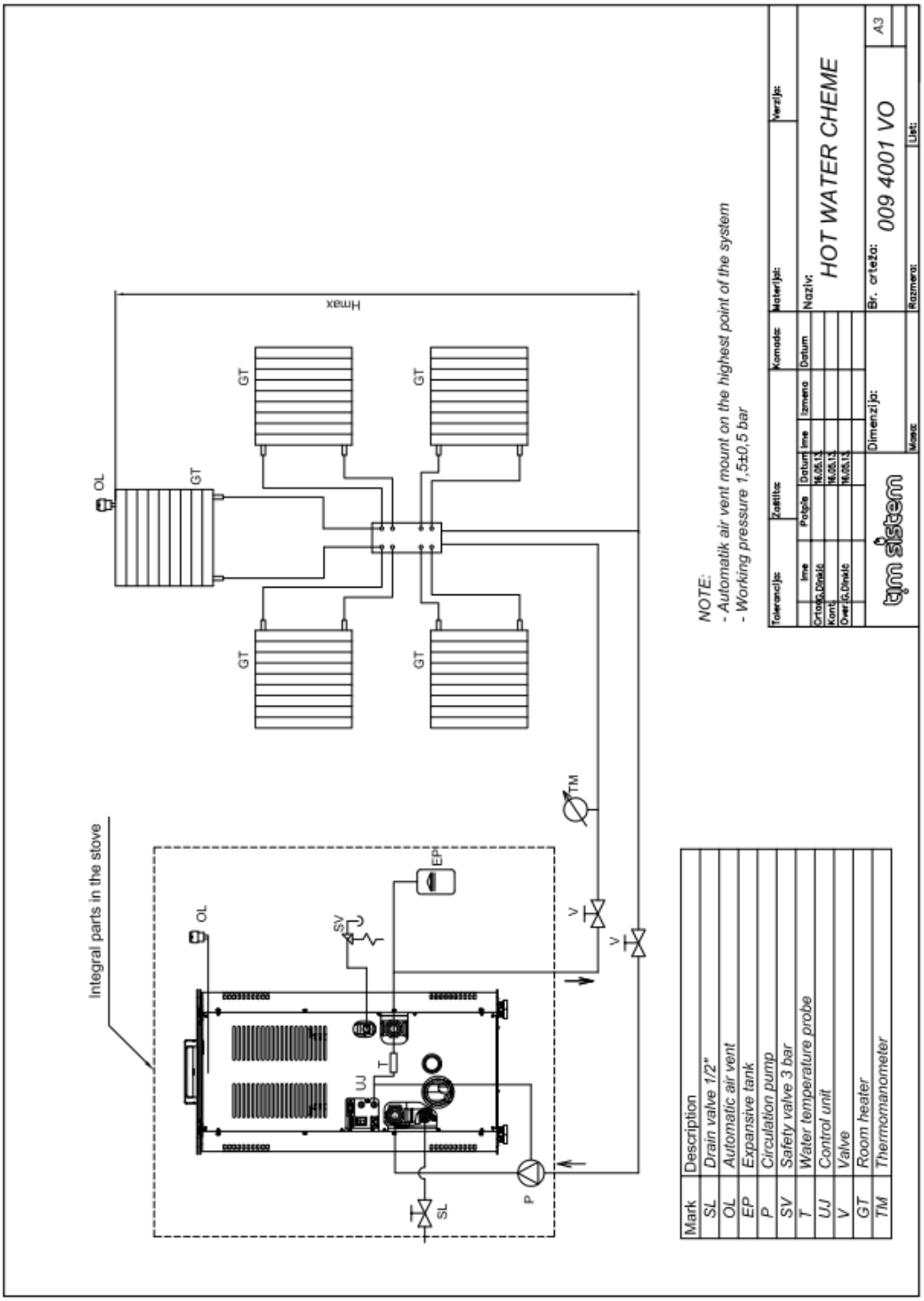
The parts subjected to wear, such as braiding (glass), gaskets, rubber parts (rubber feet, spacers), are not covered by this warranty.

All malfunctions report in written or orally by telephone, on the address listed below:

Distributor/ authorized service

13. ANNEX A

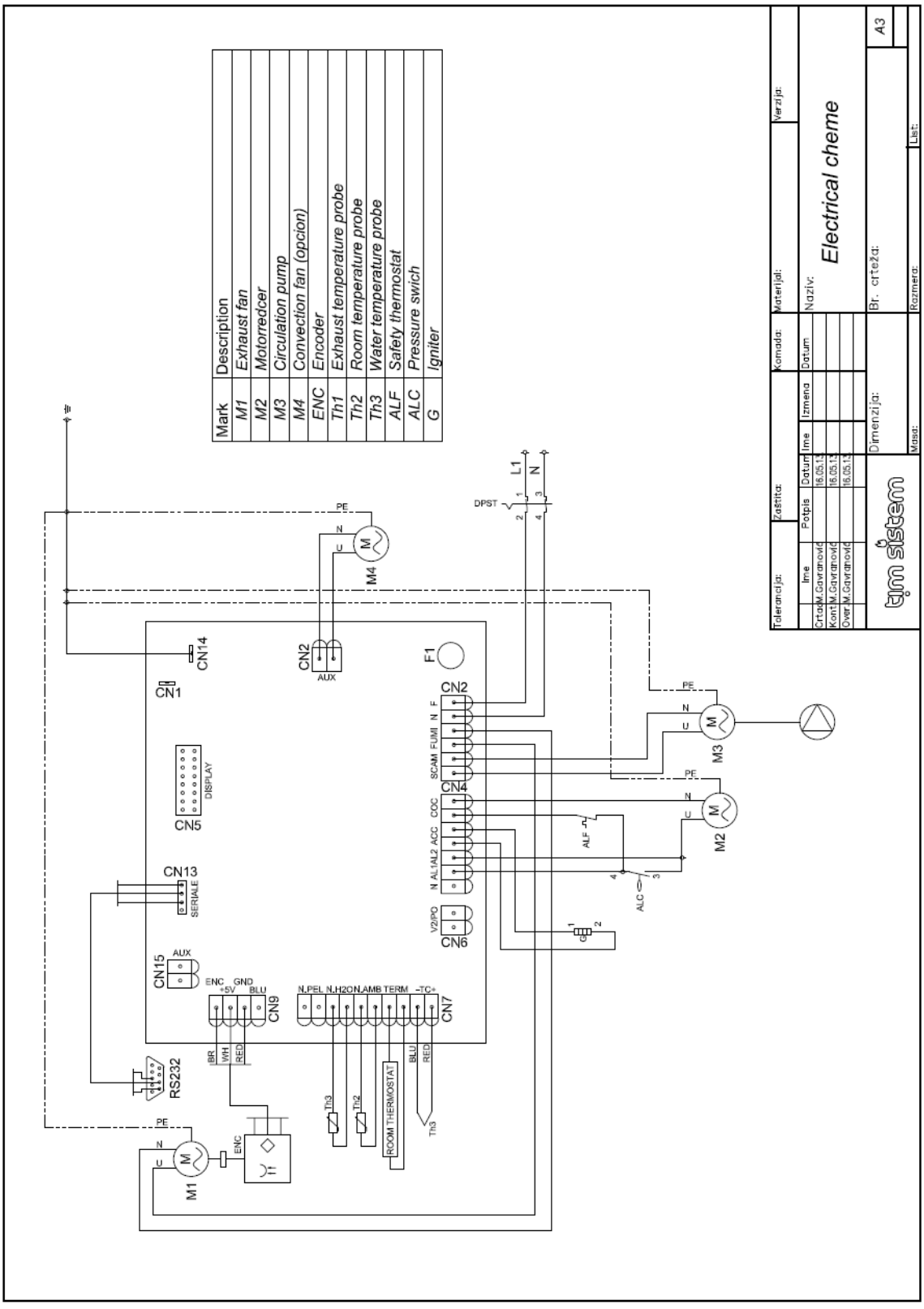
CONECTING TO A HEATING INSTALATION - CHEME



Mark	Description
SL	Drain valve 1/2"
OL	Automatic air vent
EP	Expansive tank
P	Circulation pump
SV	Safety valve 3 bar
T	Water temperature probe
UJ	Control unit
V	Valve
GT	Room heater
TM	Thermomanometer

14. ANNEX B

CONNECTING TO CONTROL UNIT - CHEME



NOTES AND SERVICE CALENDAR

TIM SISTEM d.o.o.

Prva industrijska No.9,
22 330 Nova Pazova, Srbija
tel/fax: +381 22 32 80 76
e-mail: office@timsistem.rs
www.timsistem.rs