SERVICE MENU

Briefly press the + button and then the 2 (enter) button for about 2 seconds. until the inscription Dispenser appears. View the menu by pressing the + key continuously:

1. Dispenser (23 items)
2. Fan 1 (14 items)
3. Fan 2 (7 items)
4. Timers (10 items)
5. Burner (5 items)
6. Temperature (14 items)
7. Other (9 items)

Enter one of the 7 options by briefly pressing the 2 (enter) key.

	1. Dispenser	Scope	
1.	Mode of operation of the dispenser -Modulation The boiler modulates with min., medium and max. with strength - Automatic PID The boiler works with PID regulation		1
2.	Boiler min. Force It is determined based on the max. strength and is approximately 1/3.	2-255 kW	*12kw*
3	Boiler max. power (kW)	10-1000 kW	*22 kw*
4	Level of efficiency Measure with a flue gas analyzer.	80-100%	*90%*
5	Dispenser capacity Set the burner filling time to 60 sec. (in the Dispenser, item no. 8). Remove the burner and weigh the pellet. Enter the weight of the pellets into the program.	50-10 000 gr/min	*150*
6	Dispenser operating time Determine the time according to the capacity of the dispenser. Smaller capacity - longer time and vice versa.	0.5-25 sec.	*1.5 sec*
7	Calorific power (kWh/kg) Enter the value depending on the fuel used.	3-10 kWh/kg	*4.8*
8	Filling the burner Fill the burner with fuel to cover the heater.	1-255 sec.	*250 sec*
9	Additional filling of the burner Shake the fuel into the empty tank and measure the time it takes to fill the dosing screw and for the fuel to go into the burner.	0-20000s sec.	*10 sec*
10	Dispenser ignition, phase 2 The possibility of dosing in the ignition phase to increase the temperature of the smoke, and thus reach the temperature check threshold and transition to the phase ignition.	0-100 kw	*12kw*
11	Dispenser ignition, phase 3 The possibility of adding fuel during the ignition phase, thus heating the flue gases to the required temperature	0-100 kw	*10kw*

	(min. 80°C).		
12	Burning dispenser P1 It is automatically defined based on the min. strength boiler (item no. 2 in the Dispenser).	2-1.000 kw	*12kw*
13	Burning dispenser P2 Determine the mean value of the boiler power based on the min. and max. strength.	2-1.000 kw	*17 kw*
14	Burning dispenser P3 Maximum boiler power.	2-1.000kw	*22 kw*
15	Dispenser cooling It serves to prevent ignition of the fuel in the dispenser. Set the dispenser so that it ejects only burning pellets from the dispenser. If cooling is not used, set the dosage value to 0. After cooling, the boiler shuts down.	0 -25 kw	*0 kw*
16	Dispenser corrections - limits It always provides the required amount of fuel, regardless of the calorific value, as well as the size of the pellets. This correction is controlled by the smoke probe in the combustion chamber.	0-30 %	*10%*
17	Dispenser correction, temperature point no. 1 Enter the combustion chamber temperature at min. strength boiler, read on the display.	0-1200°C	*400 C*
18	Dispenser correction, power point no. 1 Insert min. boiler power.	2-255 kw	*12 kw*
19	Dispenser correction, temperature point no. 2 Read on the display the temperature in the combustion chamber at max. strength.	0-1200°C	*680 C*
20	Dispenser correction, power point no. 2 Insert the maximum power of the boiler.	10-1.000 kw	*20 kw*
21	Dispenser stop error It is necessary to check whether the dispenser stops immediately after a power failure or has a prolonged stroke. - Utilization rate at 100% (item no. 4) - Dispenser ignition phase 2, set to max. boiler power (item no. 10) - Duration of phase 2 ignition, set to 10 min. (item #3 in Timers), - Fill the burner for 3 seconds. (item no. 8) - Remove the burner and place a larger container - Disconnect the heater - Turn on the boiler (key no. 1) When the ignition error appears on the display, remove and weigh the fuel. The required weight is 1/6 of boiler consumption at max. power. In case the weight is higher, it is necessary to enter a value from 100 to 500 msec. When the correct fuel dosage is set and the dispenser error is determined, it is necessary to return all values to the previous sizes.	0-5.100 msec	*200*
22	Dispenser2 Defines whether two dispensers are used. 0 - Not used 1 - Dispenser2 is used at the outlet of Pump1 2 - Dispenser2 is used at the Ventilator2 outlet. If dispenser 2 is also used, then it works parallel to dispenser 1, except in the case of cooling during shutdown, when its operation is blocked. Changing this parameter is only possible if the system is	0 - 2	*0*

	in the OFF state		
23	Discharge for alarm: overheated Duration of operation of the dispenser in the event of an overheated dispenser alarm If two dispensers are used, it is suggested that this parameter be set to zero, and at the same time a certain combination of values be set to the parameters: "cooling time" and "dispenser cooling", which will ensure that the dispenser tube is emptied.	0 - 250 s	*0*

	2. FAN 1	Scope	
1	Max. fan voltage 1 It is necessary to reduce the voltage in case the underpressure in the combustion chamber is less than 15 Pa in the phase of extinguishing, cleaning the burner and ventilating the boiler. This is used only in the case of operation of the boiler with an air and smoke fan, when the smoke fan has a smaller capacity than the air fan. If the boiler works only with an air fan, then use fan no. 1. If the boiler works with 2 fans, then the air goes to fan no. 1, and smoke on no. 2. If the boiler works only with a smoke fan, it is connected to fan no. 1.	75-220V	220 V
2	Fan 1, stage 1 ignition After ventilating the boiler where the fan reaches max. voltage, set the required voltage for the heater to ignite the pellet as soon as possible.	50-220V	125 V
3	Fan 1, stage 2 ignition The voltage of the fan should be slightly higher than in phase 1 in order to ensure a faster increase in the temperature of the smoke and the transition to the ignition phase.	50-220V	135 V
4	Fan 1, stage 3 ignition The speed of the fan in this phase should ensure that all the pellets ignite in the burner and raise the temperature of the smoke to approximately 80°C.	50-220V	150 V
5	Fan 1, burning P1 Setting the fan speed in the minimum power of the boiler must be determined with a flue gas analyzer. Oxygen O2 should be approximately 11%.	50-220V	100 V
6	Fan 1, burning P2 Set the fan speed for medium boiler power as P1.	50-220V	120 V
7	Fan 1, burning P3 Fan voltage for max. set the boiler power as P1 and P2.	50-220V	150 V
8	Fan 1, cooling It is used in boilers where there is a risk of ignition of the fuel tank via the dispenser; boilers with horizontal dispenser and direct contact with fuel in the tank. Set the voltage to the burning value P1.	50-220V	220 V
9	Fan mode 1 It can work in three ways: - Directly The fan speed is determined by the set voltage - RPM / Hall sensor The speed of the fan is controlled by the speed sensor - Air flow The speed of the fan is controlled by the air flow through the metering aperture.		0
10	Fan 1, voltage point 1 When the fan is chosen to control the air flow, it is necessary to calibrate the measuring aperture. It is done in two points, which should be: min. and max. fan voltage used. These are the voltages in the boiler power P1 and P3. For point 1, determine the voltage of P1. This calibration is done when the boiler is not in the burning phase.	50 -220 V	100V
11	Fan 1, voltage point 2 Set the voltage from boiler power P3, which must be	100-220V	140V

	higher than the voltage in point 1.		
12	Value sensor, point 1 The read value serves to be able to be inserted into the boilers during series production without testing each one individually. The measuring aperture is well chosen if the value is ~100 Pa.		810Pa
13	Value sensor, point 1 The read value serves to be able to be inserted into the boilers during series production without testing each one individually. The measuring aperture is well chosen if the value is ~100 Pa.		2.328Pa
14	Fan operation when filling the burner 0 - Fan1 and Fan2 do not work during burner filling 1 - Ventilator1 OFF while Ventilator2 is running during burner filling 2 - Both fans run during burner charging	0 - 2	0

	3. FAN 2	Scope	
1.	Mode of operation - Directly - RPM/Hall sensor If the Direct control option is used, the fan is controlled by changing the voltage. If the RMP/Hall sensor option is used, then the required number of fan rotations is set for small, medium and max. strength		0
2.	Ignition, stage 1 Adjust the voltage on the fan to achieve the required negative pressure in the boiler (min. 30 Pa).	60-220V	120V
3.	In this phase of burning, the pellet is already burning and it is necessary to increase the speed of the fan in order to achieve an increase in the smoke temperature of 55-58°C in 1 min.	60-220V	130V
4.	Ignition, stage 3 Adjust the fan speed so that all the pellets in the burner are ignited, and at the end of phase 3, the smoke temperature reaches min. 80°C.	60-220V	140V
5.	Gorenje P1 Required fan speed in min. adjust the burning power with a flue gas analyzer.	66-200V	100V
6.	Gorenje P2 Adjust the fan for medium power with the analyzer.	60-220V	120V
7.	Gorenje P3 Fan for max. power supply with analyzer.	60-220V	150V

4. TIMERS	Range	
Duration of phase 0 ignition The duration of boiler ventilation before ignition is set (20-60 sec).	1-255 sek	20 sec
Duration of phase 1 ignition The time it takes to fill the burner, to cover the heater, to light the fuel and to light 1/3 of the fuel in the burner. In this phase, the dispenser does not work.	0-255 min	5 min
Duration of phase 2, ignition In this phase, the dispenser starts working and the timer is activated, which controls whether the temperature of the smoke has risen. This increase is measured from the set limit of 55°C (temperature item no. 6) and the achieved increase of 3°C in one minute (temperature item no. 7). The time and duration of phase 2 should ensure an increase of 3°C and in the event of a heater failure, the pellet should not be allowed to spill out of the burner. In this phase, the negative pressure control in the boiler is activated (min. 10 Pa).	1-250 min	15 min
Duration of phase 3 ignition The duration of phase 3 or ignition should ensure that all the fuel in the burner is ignited and that the temperature of the smoke rises to the set value (minimum 80°C).	1-250 min	6 min
Minimum shutdown duration The time required for extinguishing should ensure the complete combustion of the pellets and the reduction of the temperature of the smoke to 15°C above the water.	1-250 min	3 min
Duration of cooling It is used with dispensers that enter directly into the burner. The cooling time should ensure the cooling of the combustion chamber and occasional dosing to expel fuel from the dispenser that has ignited. During the cooling phase, the fan should operate at speed P1 (min. 5 min). After cooling, the regular shutdown of the boiler starts. If the fuel does not enter the burner directly, but falls from a height, then set the time to 1-2 min. This will ensure that the fuel in the burner burns completely before turning on the fan at max. value.	0-30 min	5 min
The duration of operation of the grid in cooling The operating time of the grill should be adjusted so that it moves the fire away from the dispenser and thus prevents the ignition of the fuel in the dispenser.	1-60 sek	30 sec
Pressure switch delay The delay time for activating the pressure switch should ensure that the door on the boiler can be opened without the boiler shutting down.	Blokiran 1-255 sek	60 sec
Max. burning duration It ensures the operation of the boiler for the set time, after which the burner is mechanically cleaned. The boiler is working again. This option can be blocked.	Blokiran 1-255 sati	0 sec
Additional pump operation 1 Duration of extended operation of the sanitary water pump in the summer regime	1-255 min	0

	5. BURNER	Scope	
1.	Cleaning the burner - by air - in the pasture - in shutdown If air cleaning of the burner is used, it is necessary to adjust the cleaning period, so that no sediment remains in the burner when burning bad fuel. The cleaning time should ensure the complete expulsion of deposits from the burner, and the fuel dosing should prevent the flame from going out in the burner. Mechanical turning of the burner is used to clean the burner during ignition and shutdown. On this occasion, the sediment is shaken off and this procedure can be repeated. It is necessary to determine the number of pulses.	0-255 min	In shutdown
2.	Burner cleaning period with air If the fuel is of poor quality, set the time to 10 min. With good fuel, set the time to 45 min.	0-200 min	30 min
3.	Duration - cleaning the burner	0 – 200 sec	15 sec
4.	Dispenser - burner cleaning	0-1.000 kw	15 kw
5.	Required number of pulses	0 – 255	3

	6. TEMPERATURES	Scope	
1.	Boiler switching hysteresis Start of the boiler after the water temperature drops by the set amount below the set water temperature in the boiler (recommendation 2 °C).	0-20°C	5 °C
2.	Boiler shutdown hysteresis The boiler shuts down after the water temperature rises by the set amount, above the set water temperature in the boiler (5 °C).	1-20°C	5 °C
3.	Thermostat switch-off delay When the operation of the boiler is controlled by the thermostat, the boiler shutdown delay time can be set. If the thermostat is very sensitive and if there is frequent on-off, it is necessary to activate the delay time. When the thermostat turns off, the boiler switches to minimum power and after the time expires, it switches off. If the thermostat is switched on before the set time expires, the boiler switches from the minimum power to the required power, which will ensure the maintenance of the set water temperature in the boiler.	0-60 min	1 min
4.	Pump start temperature Take care that the low pump start-up temperature does not lead to condensation in the boiler (minimum 45°C)	30-80°C	45 °C
5.	Pump shutdown hysteresis Recommendation 5°C.	1-20°C	5 °C
6.	Smoke temperature check threshold The recommendation is 50-55°C. In phase 2 during ignition, the temperature limit is determined from which the timer is turned on, which controls whether the temperature has risen in 1 min. When this happens, the ignition from phase 2 switches to ignition (phase 3).	30-100°C	55 °C
7.	Smoke temperature rise This increase is controlled in the ignition of phase 2. The recommendation is 3-5°C.	0 – 20 °C	3 °C
8.	Min temperature difference in phase 3 In order for the boiler to switch from the ignition phase to burning, the smoke temperature must be higher than the water temperature, min. 10°C.	0-100°C	10 °C
9.	Min. temperature difference in burning This difference depends on the type and power of the boiler (min. 5°C).	0-100°C	10 °C
10.	Temperature of smoke above water - extinguishing When shutting down, the boiler should fulfill two conditions: first, it must meet the specified shutdown time and cool the smoke to the specified difference above the water. The recommendation is 15-20°C.	0-100°C	10 °C
11.	Max. water temperature If the water temperature in the boiler reaches the value defined here, the system generates an alarm: "Boiler overheated"	95-125°C	95°C
12.	Max. dispenser temperature If the temperature of the dispenser reaches the value defined here, then the system generates the "Overheated dispenser" alarm.	60-200°C	80°C
13.	Frost protection		

14.	The minimum value of the set temp. water The water temperature in the boiler that will be used for the user as a lower limit when setting the desired water temperature in the boiler	0 - 70°C	60 °C

	7. Other		
1.	Number of cycles of the dispenser before the grating	1 - 100	4
2.	Duration of grid operation	0-60 sek	2 sec
3.	The duration of the grid in shutdown	0-250sek	2 sec
4.	[illegible]	[illegible]	[illegible]
5.	[illegible]	[illegible]	[illegible]
6.	Flame temp probe function 0 - Temperature probe T2 is used to measure the flame temp 1 - the functionality that temperature probe T1 had is transferred to temperature probe T2. That is, in this case, the recognition of the presence of a flame and the condition of extinguishing completion is performed by measuring the temperature T2 2 - the functionality that temperature probe T3 had is transferred to temperature probe T2. That is, regulation of the combustion power is performed by measuring the temperature T2	0 - 2	1
7.	Input probe smoke Enable or disable the smoke detector alarm is used	Blocked - Enabled	Enabled
8.	Input probe dispenser Enable or disable the dispenser probe alarm is used	Blocked - Enabled	Enabled
9.	Input sig thermostat Enable or disable alarms Safety thermostat is used	Blocked - Enabled	Enabled

ALARMS

Message : 1 Ignition error
- Wait for the shutdown to complete
- Remove the burner
- Shake out the contents of the burner
- Return the burner to the boiler
- Check the amount of fuel in the tank

Message : 2 Extinguished flame
- Wait for the shutdown to complete
- Remove the burner
- Shake out the contents of the burner
- Return the burner to the boiler
- Check the amount of fuel in the tank

Alarm: 3 Water probe
Alarm: 4 Flue gas probe
Alarm: 5 Dispenser temperature probe
Alarm: 6 Dispenser overheated
Alarm: 9 Overheated boiler
Alarm: 10 Safety thermostat
Alarm: 12 Communication error
Alarm: 16 Pressure switch – insufficient pressure in the boiler

ELECTRICAL SCHEME OF ELECTRONICS CONNECTION