SERVICE MANUAL _r09_07_2011







CONTENTS

1. THE 5 BASIC RULES FOR INSTALLATION	4
1.1. ENVIRONMENT SUITABILITY	4
1.2. AIR INTAKE	4
1.3. SMOKE CONNECTION	
1.4. FLUE PIPE	
1.5. COWL	
2. ELETTRONICA PELLET BOX [®]	5
2.1. Operating concept	5
2.2. Recipe adjustment	
2.2.1. What is a recipe?	
2.2.2. Weight of the pellet	
2.2.3. Interpreting the installation (VERTICAL - HORIZONTAL or WALL)	
2.2.4. Selection of recipe	
2.2.5. Combustion control2.2.6. Modify the recipe after the control of the combustion	
2.2.7. Modify the technical parameters when the recipe is not sufficient.	
2.3. The adjustment of the HYDRO stoves with PELLET BOX [®] technology	
2.3.1. Before lighting a HYDRO stove: check list	
2.3.2. Operation of HYDRO stoves at full power	
2.4. Special adjustments with PELLET BOX [®] technology	
2.4.1. External room thermostat	
2.4.2. ECO-STOP mode	
2.4.3. Water temperature differential in the HYDRO stoves	
 2.5. Information on the operation of the PELLET BOX[®] device 2.6. The LCD display for PELLET BOX models – MENU tree 	
2.7. The technical parameters of the PELLET BOX models – MENO tree	
2.7.1. How to access the technical parameters	
2.7.2. The parameters	
3. "EASY" ELECTRONICS	
3.1. Operating concept	
3.1. Operating concept	
3.3. Changing the pellet load	
3.4. Change in smoke exhaust fan speed	
3.5. Parameters	
3.6. The alarms in "EASY"appliances	27
4. THE ACTIVE SYSTEM ELECTRONICS	
4.1. Operating concept	
4.2. The ACTIVE SYSTEM control panels	
4.3. The ACTIVE SYSTEM remote control	
4.3. The ACTIVE SYSTEM remote control4.3.1. Choosing the number of air fans to be managed, with the remote control (Air or Comfort	
 4.3. The ACTIVE SYSTEM remote control 4.3.1. Choosing the number of air fans to be managed, with the remote control (Air or Comfort 4.3.2. The TIMER programmes of the ACTIVE SYSTEM remote control 	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	
 4.3. The ACTIVE SYSTEM remote control	



4.12.	Boot-loader	67
4.12. 4.12.1		
4.12.2		
5. THE A	LARMS AND TROUBLE SHOOTING	69
5.1. T	he alarms in the PELLET BOX device	69
	he alarms in the ACTIVE SYSTEM device	
	rouble shooting	
5.3.1.	A01 / NO ACC / NO START	
5.3.2.	A02 / NO FIRE / NO FIRE	
5.3.3.	A03 / SIC FAIL / PELLET TEMP and H2O TEMP	74
5.3.4.	A04 / HOT TEMP / SMOKE TEMP	76
5.3.5.	A05 / DEP FAIL / SMOKE NEGATIVE PRESSURE	
5.3.6.	A06 (Only for the ACTIVE SYSTEM devices)	
5.3.7.	A07 (Only for ACTIVE SYSTEM devices)	
5.3.8.	A08 / FAN FAIL / SMOKE FAN	
5.3.9.	A09 / SOND FUMI / SMOKE SENSOR	
5.3.10 5.3.11		
5.3.12		
5.3.13		
5.3.14		
5.3.15		
5.3.16		
5.3.17		
5.3.18		
	he most common generic problems and the solutions	
5.4.1.	Display PELLET BOX that is turned on or off or illustrates incomprehensible symbols.	
5.4.2.	Reception difficulty of the ACTIVE remote control and no automatic function	
5.4.3.	Fast appearance of ON-OFF on the emergency panel.	
5.4.4.	Appearance of the PELLET alarm with the hopper full.	88
6. SCHEE	DULED MAINTENANCE	89
6.1. W	/hat and when ?	90
	ow ?	
	ow ?	
7. ELECT	RICAL DIAGRAMS	93
7.1. El	lectric diagram of a Pellet Box stove version AIR	93
	lectric diagram of a Pellet Box stove version HYDRO without KIT ACS	
	lectric diagram of a Pellet Box stove version HYDRO with KIT ACS	
	lectrical diagram of an ACTIVE SYSTEM device	
	PLES OF HYDRAULIC DIAGRAMS (EXAMPLES ONLY)	07
8.1. Pe	ellet stove/boiler + ACS	
	ellet stove/boiler + ACS + storage tank	
	ellet stove/boiler + gas/diesel boiler	
	ellet stove/boiler + gas/diesel boiler + storage tank + ACS	
	ellet stove/boiler + ACS boiler + solar system	
8.6. Pe	ellet stove/boiler + ACS + ACS boiler + solar system	
	ellet stove/boiler + "tank in tank" puffer + solar system	
	ellet stove/boiler + "pipe in tank" puffer + solar system ellet stove/boiler + gas/diesel boiler + "pipe in tank" puffer + solar system	
9. ACTIV	E PRODUCTS AND RELATED ELECTROMECHANICAL COMPONENTS	100
10. "EAS	Y" PRODUCTS AND RELATED ELECTROMECHANICAL COMPONENTS	101



1. THE 5 BASIC RULES FOR INSTALLATION

1.1. ENVIRONMENT SUITABILITY	1.2. AIR INTAKE	1.3. SMOKE CONNECTION	1.4. FLUE PIPE	1.5. COWL
An open fireplace consumes ~45m ³ of air for each kg. of fuel. The installation environment must ensure as much air as the unit is capable of consuming Consult the manufacturer's technical data concerning fuel to determine the minimum size of the installation environment. Comply with the safety distances prescribed by the manufacturer from the walls and/or flammable surfaces. Maintain the safety distances from furniture or other furnishings that may be damaged by the heat. Insulate smoke ducts located near flammable materials. Installation is prohibited in rooms where there is already a type A unit or exhaust hoods.	guarantee a correct flow of air to reintegrate the oxygen consumed by the appliance in the installation environment.	The smoke connection is the section of pipe that connects the flue pipe to the unit; It must comply with basic safety and heat resistance requirements. Flexible pipes may not be used and hence the connection must be made using only rigid pipes: • in stainless steel • in aluminium covered steel Products with forced exhaust must be connected with hermetic pipes with a special gasket. For the connection of fireplace stoves, use only changes of direction at an angle of max 45° On pellet stoves, use of a maximum of 3 curves at 90° The connection must NEVER be smaller at the smoke exit of the unit	a fundamental element in discharging smoke and therefore must have the following requisites: It must be waterproof and thermally insulated. It must be made with heat resistant materials, resistant to combustion products and any condensation. It must have a vertical slope with axis deviations not over 45° and without narrowing. It must discharge smoke at the highest point of the house. It must meet the requisites indicated in the technical table for the internal	The cowl is the end part of the flue pipe. Proper draught depends on this part. The cowl must meet the following requisites: Have an internal section equal to that of the flue pipe. Have an output section not less than double that of the internal section of the chimney flue. It must be built to prevent rain, snow and any foreign object from getting into the chimney flue. It must be positioned so as to guarantee an adequate dispersal of the fumes and must discharge outside the reflux zone, which favours the development of negative pressure.



2. ELETTRONICA PELLET BOX[®]

2.1. Operating concept

The elettronica Pellet Box® was designed with the purpose of making the combustion adjustment of pellet stoves easy, thanks to measuring the specific weight of the fuel and interpreting the installation of the appliance. From now on, we will call this operation **RECIPE ADJUSTMENT**.

Obviously, at the base of good operation, the pellet stove requires a **correct installation**, that must be conducted by a specialist technician, in compliance with current standards and the provisions of the manufacturer, contained in the manual provided with the products.

2.2. Recipe adjustment

2.2.1. What is a recipe?

RECIPES are pre-set programmes saved on the motherboard of the device, which contain a series of parameters concerning the operation of the stove in all its modes.

The recipes especially contain the values concerning the start-up and shutdown times of the reduction motor and the number of revolutions to which the smoke extraction fan must rotate at the various powers.

The concept with which recipes are created consists of varying only the **FUEL (pellet)** or the **COMBUSTION (air)** to avoid to excessively unbalance the combustion.

By modifying the recipes based on the weight of the fuel and keeping the choice of installation type (VERTICAL or HORIZONTAL) unvaried, only the quantity of pellets is modified, while the number of smoke extraction fan revolutions remains unvaried.

In the same way, by maintaining the recipe based on weight unvaried, by varying the choice of installation type (from VERTICAL to HORIZONTAL or vice versa) the quantity of pellets inserted in the grate remains unvaried but the speed of the smoke extraction fan varies.

This makes it possible to solve the problems of clogging the grate caused by the excess of FUEL or due to lack of COMBUSTION. In the same way, it is possible to solve the problems of low efficiency caused by the lack of FUEL or excessive COMBUSTION.

Example:

MERCURY					
\square					
		0			
>700 g	► M3	M7			
660 g → 700 g	► M2	M6			
630 g → 660 g	▶ M1	M5			
570 g → 630 g	► Mo	M4			

Recipe **M0** is the one that, at all flame powers, loads the greatest quantity of fuel, since the specific weight of the pellet is very low (from 570 to 630 grams per dm^3 or litre).

The speed of the smoke fan in recipe **M0** is low, since the installation is considered **VERTICAL (V)**; thus it is assumed there is a flue pipe that assists the exhaust of the smoke.

In the same way, recipe **M3** is the one that loads the lowest quantity of pellets, while the smoke fan runs at low speed.

On the contrary, recipe **M4** is the one that loads the highest quantity of fuel at all the flame powers, but in this case the smoke fan runs at a high number of revolutions. Having chosen a **HORIZONTAL (O)** recipe, it is assumed that there are some problems expelling the discharge smoke.

Recipe **M7** is the best recipe for extreme conditions concerning the weight of the pellet and the installation. In recipe **M7** the quantity of pellets loaded is low and the speed of the smoke fan is high.

The intermediate recipes (M2, M3, M5, M6) contemplate intermediate loads of fuel.

2.2.2. Weight of the pellet

Fill the pellet container (PelletBox[®]) provided with the appliance) until it is filled, using a ruler. **Do not press the contents of the recipient.**

Weigh the pellet and the container together, using a normal kitchen scale. Note the weight (example 680 grams)





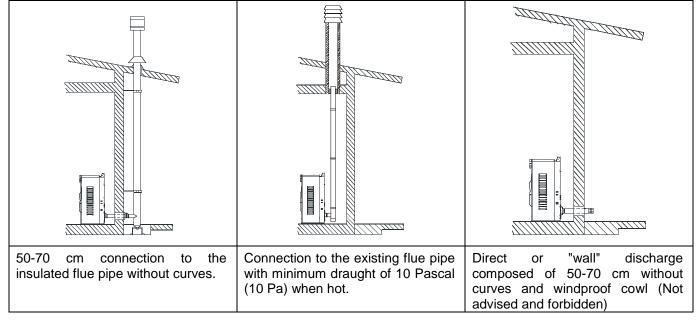
2.2.3. Interpreting the installation (VERTICAL - HORIZONTAL or WALL)

The terms **VERTICAL** and **HORIZONTAL** mean classifying the two different connections to the flue pipe (see definition of the flue pipe on page 4).

- **the VERTICAL connection** is very short, almost without any curves, and permits an almost direct connection to an "active" flue pipe, i.e. one that has a minimum natural draught of 0.10 mbar when hot.
- **the HORIZONTAL** connection is more twisted since there are curves and/or several metres of pipes. While the "vertical" connection is easy to recognise, the choice **of the HORIZONTAL installation is compulsory** in situations where the quality of the connection and the performance of the flue pipe are doubtful or where there are curves. The maximum values that can be created for a connection to the flue pipe are:
 - Never create more than 3 curves at 90°
 - Never create more than 3 metres of horizontal piping Ø 80 mm that in any case must have a minimum gradient of 3-5%
 - Never create connections in counter-slope (aimed downwards)
 - Never create a connection with more than 6 metres of pipe Ø 80 mm
 - Always install an **inspection "T**" at the output of the appliance (avoid curves at 90° or 45°)
- The installation called "WALL" or not in flue pipe (forbidden under Italian law) but still valid in some European countries, is a great risk. For those who decide to create one, we advise following these instructions:
 - Protect the output of the pipe from wind as much as possible.
 - **ALWAYS use a windproof cowl** (better if of high quality rather than just a simple windproof cap for boilers)
 - Do not use curves at 90° or "T" in place of windproof cowls. Most of the time these tricks worsen the functioning.
 - Always create the **shortest possible** connection.
 - \circ Avoid uninsulated sections of pipe Ø outdoors.
 - Avoid installation vertically against walls: they will get dirty.
 - ABSOLUTELY AVOID discharging smoke below balconies, terraces and overhangs of roofs imagining that outlets will be more protected from the wind. Instead the opposite is true: in these points of the houses the wind builds up and makes it difficult for the smoke to discharge. In addition, the possibility of seriously dirtying the building is high.
 - In case of wall installation you are advised to ALWAYS CHOOSE A HORIZONTAL RECIPE unless the installation does not consists of a simple 50-70 cm pipe, <u>without curves</u>, that directly discharges to the outside of the building, at the same height of the outlet of the stove. In this case, but only in this case, it is possible to consider the VERTICAL setting.
 - N.B. The manufacturer refuses to accept any responsibility in case of malfunctions or damage to objects
 - and people. Furthermore, an installation carried out as so, may also void the guarantee.

Below are some examples of installation to help you interpret the installation type

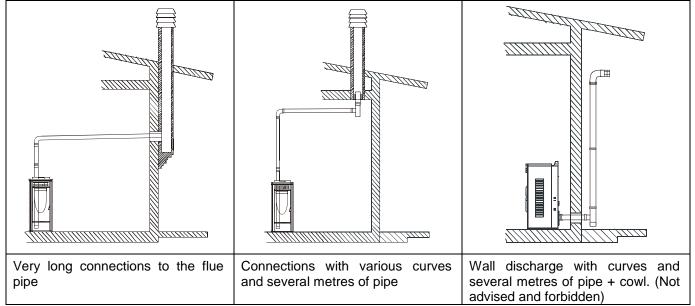
Installations where the VERTICAL setting must be chosen.





Page 7 Rev. 09 07/11 – M.C.

Installations where the HORIZONTAL setting must be chosen.

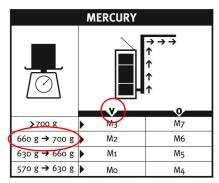


2.2.4. Selection of recipe

Suppose you want to adjust the "RECIPE" in the knowledge that this is installed on a VERTICAL configuration, that the weight of the BoxPellet®, including the pellets, is **680 grams** and that the stove is a **MERCURY** model. By crossing the values on the easy table that is on the Pellet Box®, the recipe to set is "**M2**".

Let's see how to set the recipe based on the type of control panel that is equipped on the stove.

TYPE OF PANEL	MODEL	INSTRUCTIONS
	ANTARES VEGA ASTRA AURORA MODULO From 2003 to 06/07	 With the stove off simultaneously press the buttons 3 and 4 Choose the recipe with the buttons 0 or 2 Confirm the choice with button 5
	SATURN OMEGA PLANET From 2004 to 06/07	 With the stove off simultaneously press the buttons 3 and 4 Choose the recipe with the buttons 1 or 2 Confirm the choice with button 5
	POLAR and NOVA Versions AIR MULTIAIR From 2005 to 06/06 HYDRO From 2005 to date	 With the stove off simultaneously press the buttons 3 and 4 Choose the recipe with the buttons 1 or 2 Confirm the choice with button 5







	MERCURY	1.	Press 'MENU ③ and use the button ① up to the MENU 4 "SET RECIPE" Confirm with 'MENU ⑤.
)	POLAR and NOVA Versions		Choose the recipe with the buttons 1 or 2 To confirm the choice press ' MENU 6 .
-	AIR MULTIAIR From 06/06 to 06/07		The display will show the request for confirmation "YES" or "NO". Choose one of the two options with the buttons 1 or 2 and confirm with the button 6

THE RECIPES

ANTARES -	VEGA - AST	RA - AURORA			
ANTARES	v	0			
>700 g	► H1	H5			
660 g → 700 g	► Но	H4			
630 g → 660 g	▶ G9	H3			
570 g → 630 g	► G8	H2			
VEGA - ASTRA - AURORA	v	0			
>700 g	► G3	G7			
660 g → 700 g	► G2	G6			
630 g → 660 g	► G1	G5			
570 g → 630 g	Go	G4			

POLAR - NOVA (Hydro)				
>700 g		C3		
660 g → 700 g		C2		
630 g → 660 g		C1		
570 g → 630 g		Со		

MERCURY						
	$ \begin{array}{c} \overrightarrow{} $					
>700 g		M3	M7			
660 g → 700 g		M2	M6			
630 g → 660 g		Mı	M5			
570 g → 630 g		Мо	M4			

SATURN - OMEGA - PLANET

	$ \begin{array}{c} \overrightarrow{} \rightarrow \overrightarrow{} \rightarrow \overrightarrow{} \\ \uparrow \uparrow \\ \uparrow \uparrow \uparrow \\ \uparrow \uparrow \uparrow \end{array} $				
		V	0		
>700 g		L3	L7		
660 g → 700 g		L2	L6		
630 g → 660 g		L1	L5		
570 g → 630 g		Lo	L4		

POLAR	- NOVA (Mu	ltiair/Air)		
MULTIAIR	v	0		
>700 g	► B3	B7		
660 g → 700 g	► B2	B6		
630 g → 660 g	▶ B1	B5		
570 g → 630 g	Во	B4		
AIR	v	0		
>700 g	A3	A7		
660 g → 700 g	► A2	A6		
630 g → 660 g	► A1	A5		
570 g → 630 g	► Ao	A4		



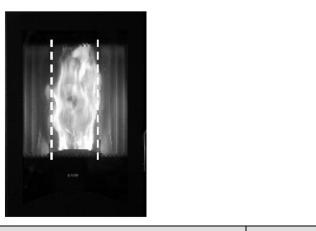
2.2.5. Combustion control

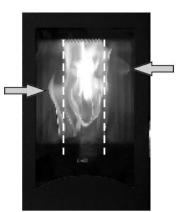
To be certain that the choice of the recipe carried out is correct, light the stove and check the combustion when the flame is established and regularised.

The flame must have yellow sides and be white in the centre, not excessively slow or too oxygenated. Observing the flame, the upper tip must be sucked towards the high part of the combustion chamber and also, it must always remain within the outline of the grate and not overflow the sides.

The bottom of the grate must always be visible, indicating that the entire pellet that falls during a reduction motor cycle, completely burns before another load cycle.

The flame must also "pulsate" (move up and down) indicating that the loaded pellet is burnt instantly.





CORRECT FLAME

INCORRECT FLAME

2.2.6. Modify the recipe after the control of the combustion.

The too oxygenated flame, is low, very white and "nervous" and the members of the pellet tend to fall from the grate.

The most evident problem is a constantly low flame and a tendency to extinguish the fire especially at low power. The variations to be made are as follows:

- Decrease the number of the recipe (e.g. from "M2" to "M1") by loading a recipe with a greater quantity of pellets.
- Should this not be sufficient, modify the recipe from HORIZONTAL to VERTICAL to decrease the speed of the smoke extraction fan and therefore the quantity of oxygen to the combustion chambers (e.g. from "M6" to "M2").

A poorly oxygenated flame is orange, sluggish and tends to produce wisps of smoke. The glass and the ALUTEC[®] (white internal refractory) guickly become dirty and blacken.

The most evident problem is the accumulation of pellets inside the grate. The faster the accumulation time, the larger the variations to be made to the recipe.

- If the accumulation is produced in a short time (2-3 hours) it is necessary to completely reconsider the type
 of installation from VERTICAL to HORIZONTAL.
- If the accumulation is produced in a long time (8-10 hours) it could be sufficient to decrease the quantity of pellets by increasing the recipe (e.g. from M2 to M3).

OTHER POSSIBLE SOLUTIONS TO THE PROBLEM OF CALIBRATION:

If the problem persists, carefully check that the seals of the door and the ash drawer are in good condition, that all the cleaning plugs of the combustion chamber are closed and that there are no obstructions in the flue pipe.

To solve even more important problems concerning the combustion, it is possible to directly act on the parameters and the internal settings of the stove, by modifying the duration of the load cycles of the reduction motor and the speed of the smoke extractor at the various powers.

Remember that the quality of the pellets is fundamental for correct combustion and is at the base of the combustion rules described above.



2.2.7. Modify the technical parameters when the recipe is not sufficient.

At the time when the recipes are not sufficient to eliminate the problems of clogging or poor efficiency it is possible to act on the technical parameters. To enter the technical parameters it is necessary to enter the **UT 04 TECHNICAL MENU**, enter the **password A9** and scroll down the list of 28 parameters listed below (the example is the Polar/Nova AIR).

N.B. In grey the loading times of the reduction motor and the speed of the smoke extractor, that must possibly be revised to adjust combustion.

E.g. (Polar/Nova stove AIR version)	RECIPES							
PARAMETERS	A0	A1	A2	A3	A4	A5	A6	A7
PR 01: Max lighting time (min)	15	15	15	15	15	15	15	15
PR 02: Fire On (min)	5	5	5	5	5	5	5	5
PR 03: Interval between the cleaning of the grate (min)	30	30	30	30	30	30	30	30
PR 04: Load wood feed screw ON (sec)	3,9	3,7	3,5	3,1	3,9	3,7	3,5	3,1
PR 05: Fire On feed screw ON (sec)	3	2,8	2,6	2,3	3	2,8	2,6	2,3
PR 06: Feed screw ON in Power 1 (sec) **	2	2	2	2	2	2	2	2
PR 07: Feed screw ON in Power 2 (sec) **	2,9	2,7	2,5	2,2	2,9	2,7	2,5	2,2
PR 08: Feed screw ON in Power 3 (sec) **	3,6	3,4	3,2	2,8	3,6	3,4	3,2	2,8
PR 09: Feed screw ON in Power 4 (sec) **	4,5	4,3	3,9	3,6	4,5	4,3	3,9	3,6
PR 10: Feed screw ON in Power 5 (sec) **	5,2	4,9	4,5	4	5,2	4,9	4,5	4
PR 11: Shutdown revolutions after alarm (rpm)	500	500	500	500	500	500	500	500
PR 12: Duration of grate cleaning (sec)	30	30	30	30	30	30	30	30
PR 13: Min temperature for the start-up phase (C°)	50	50	50	50	50	50	50	50
PR 14: Max temperature for Eco phase modulation (C°)	190	190	190	190	190	190	190	190
PR 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60
PR 16: Smoke extractor speed in Load wood (rpm)	2000	2000	2000	2000	2200	2200	2200	2200
PR 17: Smoke extractor speed in Fire On (rpm)	1350	1350	1350	1350	1600	1600	1600	1600
PR 18: Smoke extractor speed in Power 1 (rpm)	1000	1000	1000	1000	1300	1300	1300	1300
PR 19: Smoke extractor speed in Power 2 (rpm)	1070	1070	1070	1070	1370	1370	1370	1370
PR 20: Smoke extractor speed in Power 3 (rpm)	1170	1170	1170	1170	1470	1470	1470	1470
PR 21: Smoke extractor speed in Power 4 (rpm)	1260	1260	1260	1260	1560	1560	1560	1560
PR 22: Smoke extractor speed in Power 5 (rpm)	1350	1350	1350	1350	1650	1650	1650	1650
PR 23: Air exchanger speed in Power 1	12	12	12	12	12	12	12	12
PR 24: Air exchanger speed in Power 2	15	15	15	15	15	15	15	15
PR 25: Air exchanger speed in Power 3	18	18	18	18	18	18	18	18
PR 26: Air exchanger speed in Power 4	23	23	23	23	23	23	23	23
PR 27: Air exchanger speed in Power 5	28	28	28	28	28	28	28	28
PR 28:	-	-		-	-	-	-	-

To solve the problems concerning the clogging of the grate it is advisable to:

- o Increase the number of revolutions of the smoke extraction fan at all the powers of:
 - 100-150 revolutions/minutes at power 1 2 (PR18 and PR19)
 - 200 revolutions/minutes at power 3 (PR20)
 - 250-300 revolutions/minutes at power 4 5 (PR18 and PR19)
- Should the variations reported above have no effect, also act on the loading times of the reduction motor:
 - do not lower the loading time in **power 1** by more than 0.2 seconds (PR 06)
 - do not lower the loading time in **power 2-3** by more than 0.5 seconds (PR 07 PR08)
 - do not lower the loading time in **power 4-5** by more than 1 second (PR 09 PR10)

To solve the opposite problems **of low efficiency** it is preferable to increase the quantity of pellets to avoid acting on the smoke extraction fan to excessively unbalancing the combustion. In this case the variations are less "delicate" and therefore may be carried out based on the performance of the flame.

Caontained within this document you will find the tecnica parameter tables for our various products that we **STRONGLY ADVISE NOT TO MODIFY (in grey)**, also because modifying these parameters will not completely resolve the above problems.

2.3. The adjustment of the HYDRO stoves with PELLET BOX[®] technology

The Hydro pellet stove, unlike the pellet stoves that only heat the air, has all the problems concerning the combination of the appliance to an existing plumbing system.

Therefore it is indisputable that the HYDRO stove requires a correct installation by a specialist installer that may also carry out a calculation of the calorific requirement of the system.

This appliance is equipped with all the functioning and security devices to be applied on a **CLOSED TANK** system and, therefore, it may only work when the pressure of the system is between 0.5 bar and 2.5 bars.

The operating pressure advised is 1.0 bar when cold and/or 1.5 bar when hot.

The HYDRO stove, unlike the other stoves, does not have difficulties in choosing the recipe since the power of the smoke extractor fan and the high load of fuel make the adjustment of the combustion decidedly less delicate.

As you can see, in the recipes for the HYDRO stoves, there is no distinction between VERTICAL and HORIZONTAL recipes and there is just one choice possible. The only task of the operator in charge of calibration is therefore to weight the fuel to choose the correct amount based on the specific weight of the pellet. To set the recipe, follow the instructions already illustrated previously.

POLAR - NOVA (Hydro)							
		→ → → ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑					
>700 g	•	C3					
660 g → 700 g		C2					
630 g → 660 g		C1					
570 g → 630 g		Со					

2.3.1. Before lighting a HYDRO stove: check list

- Always make a preventive check of the number of radiators and the potential power consumption of the system. Plus check the delivery and return pipes, both from the point of view of the diameter and the insulation.
- The stove **MUST** be connected to the hydraulic system by using the **flexible pipes** and inserting the **cut-off valves**, in order to insulate the appliance in case of maintenance.
- Load the system with cold water through the suitable filling tap located at the rear of the stove or through another filling tap along the system. **Take the pressure to 1.0 bar.** The pressure of the system may be checked through an external pressure gauge placed along the system (advised) or thanks to the pressure transducer located inside the stove (series in all the models built until November 2008).

To check the pressure press and keep pressed the button **③**, until the pressure read appears on the display. Instead if the **OFF** is shown on the display, this means that the stove is not equipped with a pressure transducer and to know the pressure of the system another pressure gauge is required.



- Make sure that there are no leaks from the plumbing connections of the stove and the system, and tighten the joints if necessary.
- Discharge the air from the radiator system using the suitable valves.
- Discharge the stove using the vent valve placed below the ceramic top. If necessary, reintegrate the system to take the pressure back to the levels advised (1.0 bar).



- Check that the room probe, placed at the rear of the stove, does not touch any hot part but remains suspended in away to detect the air temperature.
- Adjust the correct recipe as in the procedure.



Check the calibration of the room temperature, by pressing the SET key once. With the keys 1 and 2 take the temperature to the level desired though to a temperature greater than the one in the room.



Check the calibration of the water temperature, by pressing the **SET** key **twice**. With the keys **●** and **●** take the temperature to the level desired though **NEVER LESS THAN 55°C**. Below this temperature large problems in producing condensation may be met.

The advised temperature is 65°C



Light the stove and wait until the water in the boiler reaches 50°C. At this temperature the circulator (water pump) will operate and the hot water will start to circulate in the system. By feeding cold water into the boiler again, the temperature water inside the same will quickly drop and the circulator will stop. This activity is perfectly normal and may last from 20 to 60 minutes, based on the size of the system. When all the water inside the system has a temperature exceeding 52°C, the circulator will stay active permanently.



• It is possible to modify the intervention temperature of the pump by entering the technical parameters (see chapter 2.6.) and more specifically by modifying the parameter **PR 28.**

With the keys **1** and **2** modify the start-up/shutdown temperature of the circulator. You are advised not to excessively lower the temperature (MIN 40°C) or excessively raise this threshold (MAX 55°C).

2.3.2. Operation of HYDRO stoves at full power

Once reaching full power the stove independently chooses the operating power based on the differences between the room and water temperatures requested and those desired.

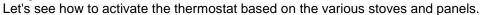
THE HYDRO STOVE ONLY WORKS IN AUTOMATIC MODE (there is no MANUAL mode)

The flame starts to decrease its operating power 5°C prior to reaching the temperature of the water in the boiler, to avoid the stove exceeding the desired water temperature, due to keeping the heat in. The stove goes into **ECO** mode (minimum power), when both the temperatures required (water and air) are

2.4. Special adjustments with PELLET BOX[®] technology

2.4.1. External room thermostat

On all the devices with PELLET BOX[®] technology it is possible to connect an EXTERNAL ROOM THERMOSTAT. To do so it is necessary to connect the thermostat to the serial port using the suitable MCZ connector





reached.



TYPE OF PANEL	MODEL	INSTRUCTIONS
	ANTARES	
	VEGA	
	ASTRA	
	AURORA	
	MODULO	
	From 2003 to 06/07	1. Press the button $oldsymbol{0}$ twice to go to
	SATURN	AUTOMATIC mode.
	OMEGA	2. Decrease the minimum temperature
	PLANET	desired with the button $oldsymbol{0}$ (7°C)
	From 2004 to 06/07	3. Therefore the stove recognises the
	POLAR and NOVA	external thermostat as priority
	Versions	
	AIR	
	MULTIAIR	
	From 2005 to 06/06	
		1. Press the buttons 2 and 3 at the
		same time to access UT01
		2. Press the button S several times until
		reaching UT16
	POLAR and NOVA	3. Press and always keep pressed the
	ATHOS	button 4
	HYDRO	4. At the same time as pressing the
	From 2005 to date	button 4 press the button 8 several
		times to reach UT20
		5. Set the internal thermostat to OFF with
		the buttons 0 or 2
		6. Confirm the choice with button 5
	MERCURY	
		1. Press the button 1 twice to go to
	POLAR and	AUTOMATIC mode.
	NOVA	2. Decrease the minimum temperature decised with the butter $\mathbf{P}_{(720)}$
	Versions	desired with the button \mathbf{O} (7°C)
	AIR	3. Therefore the stove recognises the external thermostat as priority and
	MULTIAIR	indicates on the display EXTERNAL
	From 06/06 to 06/07	THERMOSTAT

2.4.2. ECO-STOP mode

On all the devices with PELLET BOX[®] technology it is possible to activate the ECO-STOP mode. This function may be considered as an "advanced automatic" mode that provides for the **shut down of the device** upon reaching the temperature instead of simply decreasing the power to the minimum (ECO).

It is UNADVISABLE to use the ECO-STOP in premises with little insulation or where the cooling of the installation environment is very sudden. If used in these conditions, the device is forced to frequently start up and shut down.

Let's see how to activate this function based on the various stoves and panels.



TYPE OF PANEL	MODEL	INSTRUCTIONS
	ANTARES VEGA ASTRA AURORA MODULO From 2003 to 06/07 SATURN OMEGA PLANET From 2004 to 06/07 POLAR and NOVA Versions AIR / MULTIAIR	 Press the buttons 2 and 3 at the same time to access UT01 Press the button 3 several times until reaching UT16 Press and always keep pressed the button 4 At the same time as pressing the button 9 press the button 3 to reach UT18 Set the internal ECO-STOP to ON with the buttons 1 or 2
	From 2005 to 06/06 POLAR and NOVA ATHOS HYDRO From 2005 to date	 6. Confirm the choice with button 5 1. Press the buttons 2 and 3 at the same time to access UT01 2. Press the button 3 several times until reaching UT16 3. Press and always keep pressed the button 4 4. At the same time as pressing the button 9 press the button 3 to reach UT19 5. Set the internal ECO-STOP to ON with the buttons 0 or 2 and to chose the numbers of minutes after which the ECOSTOP must turn off the stove. 6. Confirm the choice with button 5
	MERCURY POLAR and NOVA Versions AIR MULTIAIR From 06/06 to 06/07	 Press the button MENU With the button O go to MENU 5 Press the button MENU to access and set the ECO-STOP. With the button O choose ON Confirm with button MENU

2.4.3. Water temperature differential in the HYDRO stoves

In the Hydro models there is the possibility of decreasing or increasing the temperature differential to avoid that the temperature reached by the water in the boiler exceeds a certain value set by the user. This differential has a default setting into the menu UT18 of 10°C. To enter in this menu, follow de same directions as per menu UT19 and UT20

This interval makes the stove decrease the operating power if the water reaches the temperature set + 10°C

Example:

WATER TEMPERATURE SET TEMPERATURE DIFFERENTIAL

= 65°C = 10°C

At 75°C the stove necessarily goes to the minimum power to avoid overheating the water and boiling it.



2.5. Information on the operation of the PELLET BOX[®] device

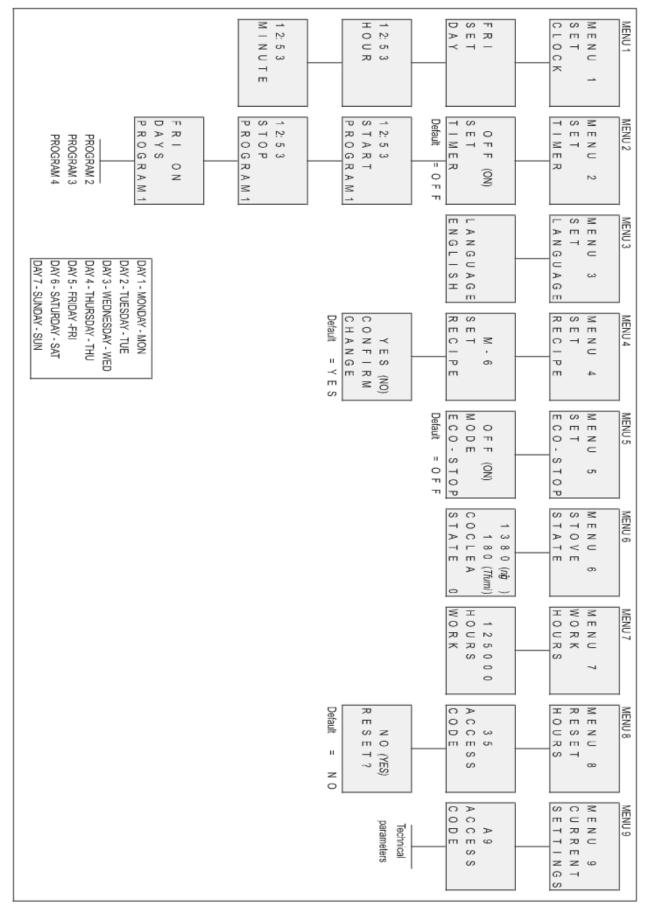
It is possible to recover information on the operation of the device while it is on or during some particular operation phases.

This information is often fundamental to solve problems or to carry out a correct diagnosis of the faults.

TYPE OF PANEL	MODEL	INSTRUCTIONS
	ANTARES VEGA ASTRA AURORA MODULO SATURN OMEGA PLANET	 By pressing and keeping pressed the button two pieces of information may be found: Number of revolutions of the smoke fan detected by the encoder (E.g.: 1840) Current temperature of the smoke sensor (E.g.: 103°) By pressing and keeping pressed for 5 seconds during the start up phase the button it is possible to skip the start-up process.
	POLAR and NOVA Versions AIR '05 MULTIAIR '05	Obviously, to avoid that the stove goes into alarm condition, the smoke sensor must be more than 60°C. This function may be useful to change the recipe and immediately restart the stove without waiting for the entire 15 minute start up process.
	MERCURY POLAR and NOVA Versions AIR '06 MULTIAIR '06	 Press ③ and use the button ① up to MENU 6 There are three pieces of information here: Number of revolutions of the smoke fan detected by the encoder (E.g.: 1840) Current temperature of the smoke sensor (E.g.: 103°) Reduction motor operating (1 = Operating 0 = Off) Press ④ and use the button ① up to MENU 7 Here it is possible to see the number of working hours of the device. In MENU 8, by entering the password (35), it is possible to reset the number of working hours.
	POLAR and NOVA ATHOS Versions HYDRO	 By pressing and keeping pressed the button two pieces of information may be found: Number of revolutions of the smoke fan detected by the encoder (E.g.: 1840) Current temperature of the smoke sensor (E.g.: 103°) By pressing and keeping pressed the button it is possible to control the water pressure in the system.



2.6. The LCD display for PELLET BOX models – MENU tree





2.7. The technical parameters of the PELLET BOX stoves

2.7.1. How to access the technical parameters

TYPE OF PANEL	MODEL	INSTRUCTIONS
	ANTARES VEGA ASTRA AURORA MODULO	 Press the buttons ② and ③ at the same time to access UT01 Press the button ③ three times to access the parameter UT04
	SATURN OMEGA PLANET	 3. Enter the password (A9) with the buttons 1 or 2 4. Confirm the password by pressing the button 3.
	POLAR / NOVA AIR '05 MULTIAIR '05 HYDRO	 5. To scroll through the various parameters, use the button 3 6. To modify the parameters, use the buttons 1 or 2
	MERCURY POLAR and NOVA Versions AIR '06 MULTIAIR '06	 Press ③ and use the button ① up to MENU 9 Press the button ⑤ to access Enter the password (A9) with the buttons ① or ② Confirm the password by pressing the button ⑤. To scroll through the various parameters, use the button ⑤ To modify the parameters, use the buttons ① or ②

2.7.2. The parameters

NTARES	G8	G9	HO	H1	H2	H3	H4	H5
R 01: Max lighting time (min)	15	15	15	15	15	15	15	15
R 02: Fire On (min)	5	5	5	5	5	5	5	5
R 03: Interval between the cleaning of the grate (min)	60*	60*	60*	60*	60*	60*	60*	60*
R 04: Load wood feed screw ON (sec)	2,7	2,6	2,4	2,1	2,7	2,6	2,4	2,1
R 05: Fire On feed screw ON (sec)	3	3	2,7	2,5	3	3	2,7	2,5
R 06: Feed screw ON in Power 1 (sec) **	2	2	2	2	2	2	2	2
R 07: Feed screw ON in Power 2 (sec) **	3,3	3,1	2,8	2,5	3,3	3,1	2,8	2,5
R 08: Feed screw ON in Power 3 (sec) **	4,3	4	3,7	3,4	4,3	4	3,7	3,4
R 09: Feed screw ON in Power 4 (sec) **	5,4	5,1	4,7	4,2	5,4	5,1	4,7	4,2
R 10: Feed screw ON in Power 5 (sec) **	6,2	6	5,5	5	6,2	6	5,5	5
R 11: Shutdown revolutions after alarm (rpm)	500	500	500	500	500	500	500	500
R 12: Duration of grate cleaning (sec)	30*	30*	30*	30*	30*	30*	30*	30*
R 13: Min temperature for the start-up phase (C°)	50	50	50	50	50	50	50	50
R 14: Max temperature for Eco phase modulation (C°)	180	180	180	180	180	180	180	180
R 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60
R 16: Smoke extractor speed in Load wood (rpm)	1970	1970	1970	1970	2330	2330	2330	233
R 17: Smoke extractor speed in Fire On (rpm)	1210	1210	1210	1210	1570	1570	1570	157
R 18: Smoke extractor speed in Power 1 (rpm)	900	900	900	900	1300	1300	1300	130
R 19: Smoke extractor speed in Power 2 (rpm)	1090	1090	1090	1090	1430	1430	1430	143
R 20: Smoke extractor speed in Power 3 (rpm)	1210	1210	1210	1210	1570	1570	1570	157
R 21: Smoke extractor speed in Power 4 (rpm)	1380	1380	1380	1380	1740	1740	1740	174
R 22: Smoke extractor speed in Power 5 (rpm)	1520	1520	1520	1520	1830	1830	1830	183
R 23: Air exchanger speed in Power 1	12	12	12	12	12	12	12	12
R 24: Air exchanger speed in Power 2	16	16	16	16	16	16	16	16
R 25: Air exchanger speed in Power 3	21	21	21	21	21	21	21	21
R 26: Air exchanger speed in Power 4	25	25	25	25	25	25	25	25
R 27: Air exchanger speed in Power 5	28	28	28	28	28	28	28	28
R 28: Parameters of trasmission of remote control (0-1-2-3)	0	0	0	0	0	0	0	0

Service Manual - cod. 89070072 - UK



Rev. 09 07/11 – M.C.

STRA - VEGA - AURORA – MODULO PELLET	G0	G1	G2	G3	G4	G5	G6	G7
R 01: Max lighting time (min)	15	15	15	15	15	15	15	15
R 02: Fire On (min)	5	5	5	5	5	5	5	5
R 03: Interval between the cleaning of the grate (min)	60*	60*	60*	60*	60*	60*	60*	60*
R 04: Load wood feed screw ON (sec)	2,7	2,6	2,4	2,1	2,7	2,6	2,4	2,1
R 05: Fire On feed screw ON (sec)	3	3	2,8	2,5	3	3	2,8	2,5
R 06: Feed screw ON in Power 1 (sec) **	2	2	2	2	2	2	2	2
R 07: Feed screw ON in Power 2 (sec) **	2,8	2,6	2,4	2,1	2,8	2,6	2,4	2,1
R 08: Feed screw ON in Power 3 (sec) **	3,6	3,5	3,3	3	3,6	3,5	3,3	3
R 09: Feed screw ON in Power 4 (sec) **	4,8	4,5	4,1	3,7	4,8	4,5	4,1	3,7
R 10: Feed screw ON in Power 5 (sec) **	5,8	5,6	5,1	4,5	5,8	5,6	5,1	4,5
R 11: Shutdown revolutions after alarm (rpm)	500	500	500	500	500	500	500	500
R 12: Duration of grate cleaning (sec)	30*	30*	30*	30*	30*	30*	30*	30
R 13: Min temperature for the start-up phase (C°)	50	50	50	50	50	50	50	50
R 14: Max temperature for Eco phase modulation (C°)	180	180	180	180	180	180	180	180
R 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60
R 16: Smoke extractor speed in Load wood (rpm)	1970	1970	1970	1970	2330	2330	2330	233
R 17: Smoke extractor speed in Fire On (rpm)	1100	1100	1100	1100	1500	1500	1500	150
R 18: Smoke extractor speed in Power 1 (rpm)	860	860	860	860	1250	1250	1250	125
R 19: Smoke extractor speed in Power 2 (rpm)	990	990	990	990	1370	1370	1370	137
R 20: Smoke extractor speed in Power 3 (rpm)	1100	1100	1100	1100	1500	1500	1500	150
R 21: Smoke extractor speed in Power 4 (rpm)	1250	1250	1250	1250	1660	1660	1660	166
R 22: Smoke extractor speed in Power 5 (rpm)	1390	1390	1390	1390	1750	1750	1750	175
R 23: Air exchanger speed in Power 1	6	6	6	6	6	6	6	6
R 24: Air exchanger speed in Power 2	8	8	8	8	8	8	8	8
R 25: Air exchanger speed in Power 3	10	10	10	10	10	10	10	10
R 26: Air exchanger speed in Power 4	11	11	11	11	11	11	11	11
R 27: Air exchanger speed in Power 5	19	19	19	19	19	19	19	19
R 28: Parameters of trasmission of remote control (0-1-2-3)	0	0	0	0	0	0	0	0

SATURN – OMEGA – PLANET – Versione A – Display LED	L0	L1	L2	L3	L4	L5	L6	L7
PR 01: Max lighting time (min)	15	15	15	15	15	15	15	15
PR 02: Fire On (min)	5	5	5	5	5	5	5	5
PR 03: Interval between the cleaning of the grate (min)	30*	30*	30*	30*	30*	30*	30*	30*
PR 04: Load wood feed screw ON (sec)	3,5	3,4	3,2	2,8	3,5	3,4	3,2	2,8
PR 05: Fire On feed screw ON (sec)	2,6	2,6	2,4	2,1	2,6	2,6	2,4	2,1
PR 06: Feed screw ON in Power 1 (sec) **	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
PR 07: Feed screw ON in Power 2 (sec) **	2,8	2,6	2,4	2,1	2,8	2,6	2,4	2,1
PR 08: Feed screw ON in Power 3 (sec) **	3,5	3,4	3,2	2,8	3,5	3,4	3,2	2,8
PR 09: Feed screw ON in Power 4 (sec) **	4,5	4,2	3,8	3,5	4,5	4,2	3,8	3,5
PR 10: Feed screw ON in Power 5 (sec) **	5,2	5	4,5	4	5,2	5	4,5	4
PR 11: Shutdown revolutions after alarm (rpm)	500	500	500	500	500	500	500	500
PR 12: Duration of grate cleaning (sec)	30*	30*	30*	30*	30*	30*	30*	30*
PR 13: Min temperature for the start-up phase (C°)	50	50	50	50	50	50	50	50
PR 14: Max temperature for Eco phase modulation (C°)	185	185	185	185	185	185	185	185
PR 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60
PR 16: Smoke extractor speed in Load wood (rpm)	1800	1800	1800	1800	2200	2200	2200	2200
PR 17: Smoke extractor speed in Fire On (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 18: Smoke extractor speed in Power 1 (rpm)	900	900	900	900	1300	1300	1300	1300
PR 19: Smoke extractor speed in Power 2 (rpm)	1050	1050	1050	1050	1400	1400	1400	1400
PR 20: Smoke extractor speed in Power 3 (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 21: Smoke extractor speed in Power 4 (rpm)	1350	1350	1350	1350	1700	1700	1700	1700
PR 22: Smoke extractor speed in Power 5 (rpm)	1500	1500	1500	1500	1800	1800	1800	1800
PR 23: Air exchanger speed in Power 1	13	13	13	13	13	13	13	13
PR 24: Air exchanger speed in Power 2	14	14	14	14	14	14	14	14
PR 25: Air exchanger speed in Power 3	15	15	15	15	15	15	15	15
PR 26: Air exchanger speed in Power 4	19	19	19	19	19	19	19	19
PR 27: Air exchanger speed in Power 5	22	22	22	22	22	22	22	22

N.B. In grey are the parameters that we strongly advise NOT to modifiy

* In power 1 e power 2 the clearing of the combustion pot is excluded.

SATURN – OMEGA – PLANET – Versione A2 – Display LED	LO	L1	L2	L3	L4	L5	L6	L7
PR 01: Max lighting time (min)	15	15	15	15	15	15	15	15
PR 02: Fire On (min)	5	5	5	5	5	5	5	5
PR 03: Interval between the cleaning of the grate (min)	30*	30*	30*	30*	30*	30*	30*	30*
PR 04: Load wood feed screw ON (sec)	3,5	3,4	3,2	2,8	3,5	3,4	3,2	2,8
PR 05: Fire On feed screw ON (sec)	2,6	2,6	2,4	2,1	2,6	2,6	2,4	2,1
PR 06: Feed screw ON in Power 1 (sec) **	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
PR 07: Feed screw ON in Power 2 (sec) **	2,8	2,6	2,4	2,1	2,8	2,6	2,4	2,1
PR 08: Feed screw ON in Power 3 (sec) **	3,5	3,4	3,2	2,8	3,5	3,4	3,2	2,8
PR 09: Feed screw ON in Power 4 (sec) **	4,5	4,2	3,8	3,5	4,5	4,2	3,8	3,5
PR 10: Feed screw ON in Power 5 (sec) **	5,2	5	4,5	4	5,2	5	4,5	4
PR 11: Shutdown revolutions after alarm (rpm)	500	500	500	500	500	500	500	500
PR 12: Duration of grate cleaning (sec)	30*	30*	30*	30*	30*	30*	30*	30*
PR 13: Min temperature for the start-up phase (C°)	50	50	50	50	50	50	50	50
PR 14: Max temperature for Eco phase modulation (C°)	185	185	185	185	185	185	185	185
PR 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60
PR 16: Smoke extractor speed in Load wood (rpm)	1800	1800	1800	1800	2200	2200	2200	2200
PR 17: Smoke extractor speed in Fire On (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 18: Smoke extractor speed in Power 1 (rpm)	900	900	900	900	1300	1300	1300	1300
PR 19: Smoke extractor speed in Power 2 (rpm)	1050	1050	1050	1050	1400	1400	1400	1400
PR 20: Smoke extractor speed in Power 3 (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 21: Smoke extractor speed in Power 4 (rpm)	1350	1350	1350	1350	1700	1700	1700	1700
PR 22: Smoke extractor speed in Power 5 (rpm)	1500	1500	1500	1500	1800	1800	1800	1800
PR 23: Air exchanger speed in Power 1	5	5	5	5	5	5	5	5
PR 24: Air exchanger speed in Power 2	6	6	6	6	6	6	6	6
PR 25: Air exchanger speed in Power 3	8	8	8	8	8	8	8	8
PR 26: Air exchanger speed in Power 4	11	11	11	11	11	11	11	11
PR 27: Air exchanger speed in Power 5	22	22	22	22	22	22	22	22

N.B. In grey are the parameters that we strongly advise NOT to modifiy

* In power 1 e power 2 the clearing of the combustion pot is excluded.



Rev. 09 07/11 – M.C.

SATURN – OMEGA – PLANET – Versione A3 – Display LED	L0	L1	L2	L3	L4	L5	L6	L7
PR 01: Max lighting time (min)	15	15	15	15	15	15	15	15
PR 02: Fire On (min)	5	5	5	5	5	5	5	5
PR 03: Interval between the cleaning of the grate (min)	30*	30*	30*	30*	30*	30*	30*	30*
PR 04: Load wood feed screw ON (sec)	3,5	3,4	3,2	2,8	3,5	3,4	3,2	2,8
PR 05: Fire On feed screw ON (sec)	2,6	2,6	2,4	2,1	2,6	2,6	2,4	2,1
PR 06: Feed screw ON in Power 1 (sec) **	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
PR 07: Feed screw ON in Power 2 (sec) **	2,8	2,6	2,4	2,1	2,8	2,6	2,4	2,1
PR 08: Feed screw ON in Power 3 (sec) **	3,5	3,4	3,2	2,8	3,5	3,4	3,2	2,8
PR 09: Feed screw ON in Power 4 (sec) **	4,5	4,2	3,8	3,5	4,5	4,2	3,8	3,5
PR 10: Feed screw ON in Power 5 (sec) **	5,2	5	4,5	4	5,2	5	4,5	4
PR 11: Shutdown revolutions after alarm (rpm)	500	500	500	500	500	500	500	500
PR 12: Duration of grate cleaning (sec)	30*	30*	30*	30*	30*	30*	30*	30*
PR 13: Min temperature for the start-up phase (C°)	50	50	50	50	50	50	50	50
PR 14: Max temperature for Eco phase modulation (C°)	185	185	185	185	185	185	185	185
PR 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60
PR 16: Smoke extractor speed in Load wood (rpm)	1800	1800	1800	1800	2200	2200	2200	2200
PR 17: Smoke extractor speed in Fire On (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 18: Smoke extractor speed in Power 1 (rpm)	900	900	900	900	1300	1300	1300	1300
PR 19: Smoke extractor speed in Power 2 (rpm)	1050	1050	1050	1050	1400	1400	1400	1400
PR 20: Smoke extractor speed in Power 3 (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 21: Smoke extractor speed in Power 4 (rpm)	1350	1350	1350	1350	1700	1700	1700	1700
PR 22: Smoke extractor speed in Power 5 (rpm)	1500	1500	1500	1500	1800	1800	1800	1800
PR 23: Air exchanger speed in Power 1	11	11	11	11	11	11	11	11
PR 24: Air exchanger speed in Power 2	13	13	13	13	13	13	13	13
PR 25: Air exchanger speed in Power 3	15	15	15	15	15	15	15	15
PR 26: Air exchanger speed in Power 4	19	19	19	19	19	19	19	19
PR 27: Air exchanger speed in Power 5	22	22	22	22	22	22	22	22
N.B. In grey are the parameters that we strongly advise NOT to modified	ïy ≮lr	n power 1 e	power 2 th	ne clearing	of the com	bustion pot	is exclude	ed.

SATURN – OMEGA – PLANET – Versione B1 – Display LCD	LO	L1	L2	L3	L4	L5	L6	L7
PR 01: Max lighting time (min)	15 2 30*	15 2 30*	15	15	15	15 2	15 2	15
PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min)	2	2	2 30*	2 30*	2 30*	2 30*	2 30*	2 30*
PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec)	3,5	3,4	3,2	2,8	3,5	3,4	3,2	2,8
PR 05: Fire On feed screw ON (sec)	2,6	2,6	2,4	2,1	2,6	2,6	2,4	2,1
PR 06: Feed screw ON in Power 1 (sec) **	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
PR 07: Feed screw ON in Power 2 (sec) ** PR 08: Feed screw ON in Power 3 (sec) **	2,8 3,5	2,6 3,4	2,4 3,2	2,1 2,8	2,8 3,5	2,6 3,4	2,4 3,2	2,1 2,8
PR 09: Feed screw ON in Power 3 (sec) **		3,4 4,2	3,2 3,8	3,5	4,5	3,4 4.2	3,2 3,8	2,0 3,5
PR 10: Feed screw ON in Power 5 (sec) **	4,5 5,2	5	4,5	4	5,2	4,2 5	4,5	4
PR 11: Shutdown revolutions after alarm (rpm)	1100	1100	1100	1100	1100	1100	1100	1100
PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C°)	30*	30*	30* 50	30* 50	30* 50	30* 50	30* 50	30* 50
PR 13. Will temperature for the start-up phase (C) PR 14: Max temperature for Eco phase modulation (C°)	50 190	50 190	190	190	190	190	190	190
PR 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60
PR 16: Smoke extractor speed in Load wood (rpm)	1800	1800	1800	1800	2200	2200	2200	2200
PR 17: Smoke extractor speed in Fire On (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 18: Smoke extractor speed in Power 1 (rpm) PR 19: Smoke extractor speed in Power 2 (rpm)	900 1050	900 1050	900 1050	900 1050	1300 1400	1300 1400	1300 1400	1300 1400
PR 20: Smoke extractor speed in Power 3 (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 21: Smoke extractor speed in Power 4 (rpm)	1350	1350	1350	1350	1700	1700	1700	1700
PR 22: Smoke extractor speed in Power 5 (rpm)	1500	1500	1500	1500	1800	1800	1800	1800
PR 23: Air exchanger speed in Power 1 PR 24: Air exchanger speed in Power 2	23	23 25 28 36	23 25	23 25	23 25	23 25	23 25	23 25
PR 25: Air exchanger speed in Power 3	25 28	28	25 28 36	28	28	28	28 36	
PR 26: Air exchanger speed in Power 4	36		36	36	36	36		28 36
PR 27: Air exchanger speed in Power 5	44	44	44	44	44	44	44	44
PR 28: Smoke extractor parameter in grate cleaning (rpm) PR 29: Time for the restart up in eco-stop (min)	2500	2500	2500	2500 20'	2500 20'	2500 20'	2500 20'	2500 20'
PR 30: Start up differential when hot (C°)	20' 5	20' 5	20' 5	5	5	5	20 5	20 5
N.B. In grey are the parameters that we strongly advise NOT to modif	fiv * Ir		nowor 2 t	ho cloaring	of the com	buction not	t is exclude	d
H.B. In grey are the parameters that we strongly advise NOT to mode	iiy ii	i powei i e		ne cleaning		ingranin ho		su.
	LO	L1	μοι μοι 2 τι L2	L3	L4	L5	L6	L7
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min)	L0	L1 15	L2 15	L3	L4 15	L5	L6 15	L7 15
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min)	L0 15 2	L1 15	L2 15 2	L3 15 2	L4 15 2	L5 15 2	L6 15 2	L7 15 2
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min)	L0 15 2 30*	L1 15 2 30*	L2 15 2 30*	L3 15 2 30*	L4 15 2 30*	L5 15 2 30*	L6 15 2 30*	L7 15 2 30*
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec)	L0 15 2 30* 3,5	L1 15 2 30* 3,4	L2 15 2 30* 3,2	L3 15 2 30* 2,8	L4 15 2 30* 3,5	L5 15 2 30* 3,4	L6 15 2 30* 3,2	L7 15 2 30* 2,8
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 05: Feed screw ON in Power 1 (sec) **	L0 15 2 30* 3,5 2,6 1,8	L1 15 2 30* 3,4 2,6 1,8	L2 15 2 30* 3,2 2,4	L3 15 2 30* 2,8 2,1 1,8	L4 15 2 30* 3,5 2,6 1,8	L5 15 2 30* 3,4 2,6 1,8	L6 15 2 30* 3,2 2,4 1,8	L7 15 2 30* 2,8 2,1 1,8
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 05: Fire On feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) **	L0 15 2 30* 3,5 2,6 1,8	L1 15 2 30* 3,4 2,6 1,8	L2 15 2 30* 3,2 2,4	L3 15 2 30* 2,8 2,1 1,8 2,1	L4 15 2 30* 3,5 2,6 1,8 2,8	L5 15 2 30* 3,4 2,6 1,8 2,6	L6 15 2 30* 3,2 2,4 1,8	L7 15 2 30* 2,8 2,1 1,8 2,1
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) ** PR 08: Feed screw ON in Power 3 (sec) **	L0 15 2 30* 3,5 2,6 1,8 2,8 2,8 3,5	L1 15 2 30* 3,4 2,6 1,8 2,6 3,4	L2 15 2 30* 3,2 2,4 1,8 2,4 1,8 2,4 3,2	L3 15 2,8 2,1 1,8 2,1 1,8 2,1 2,8	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5	L5 15 2 30* 3,4 2,6 1,8 2,6 3,4	L6 15 2 30* 3.2 2.4 1.8 2.4 1.8 2.4 3.2	L7 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 2,8
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 06: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) ** PR 08: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) **	L0 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 4,5 5,2	L1 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2	L2 15 2 30* 3,2 2,4 1,8 2,4 3,2 3,8 4,5	L3 15 2 30* 2,8 2,1 1,8 2,1	L4 15 2 30* 3,5 2,6 1,8 2,8	L5 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5	L6 15 2 30* 3,2 2,4 1,8 2,4 3,2 3,8	L7 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 06: Feed screw ON in Power 1 (sec) ** PR 08: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 5 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 10: Full Studdown revolutions after alarm (rom)	L0 15 2 30* 3.5 2.6 1.8 2.8 3.5 4.5 5.2 1100	L1 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100	L2 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100	L3 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100	L5 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100	L6 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100	L7 15 2 30° 2,8 2,1 1,8 2,1 2,8 3,5 4 4 1100
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 06: Feed screw ON in Power 2 (sec) ** PR 07: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 5 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec)	L0 15 2 30° 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30°	L1 15 2 30* 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30*	L2 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30*	L3 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30*	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30*	L5 15 2 30" 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30"	L6 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30*	L7 15 2 30° 2.8 2.1 1.8 2.1 2.8 3.5 4 1100 30°
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) ** PR 08: Feed screw ON in Power 3 (sec) ** PR 08: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 5 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C*)	L0 15 2 30° 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30° 50	L1 15 2 30* 2,6 1,8 2,6 3,4 4,2 5 1100 30* 50	L2 15 2 30° 3.2 2.4 1.8 2.4 3.2 3.2 3.2 3.2 3.2 3.2 3.2 50	L3 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50	L5 15 2 30* 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30* 50	L6 15 2 30* 3,2 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50	L7 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 05: Fire On feed screw ON in Power 1 (sec) ** PR 06: Feed screw ON in Power 2 (sec) ** PR 07: Feed screw ON in Power 3 (sec) ** PR 08: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 5 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C*) PR 14: Max temperature for cophase modulation (C*)	L0 15 2 30° 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30° 50 190	L1 15 2 30* 2.6 1.8 2.6 3.4 4.2 5 1100 30* 50 190	L2 15 2 30° 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30° 50 190	L3 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30*	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30*	L5 15 2 30* 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30* 50 190	L6 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30*	L7 15 2 30° 2.8 2.1 1.8 2.1 2.8 3.5 4 1100 30°
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 06: Feed screw ON in Power 2 (sec) ** PR 09: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 10: Feed screw ON in Power 4 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C*) PR 14: Max temperature for Eco phase modulation (C*) PR 15: Temp. to start up/shut down the exchanger (C*) PR 16: Smoke extractor speed in Load wood (rpm)	L0 15 2 30° 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30° 50	L1 15 2 30* 2,6 1.8 2,6 1.8 2,6 3,4 4,2 5 1100 30* 50 190 60 1800	L2 15 2 30° 3.2 2.4 1.8 2.4 3.2 3.2 3.2 3.2 3.2 3.2 3.2 50	L3 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190	L5 15 2 30* 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30* 50	L6 15 2 30* 2,4 1.8 2,4 1.8 2,4 3.2 3.8 4.5 1100 30* 50 190 60 2200	L7 15 2 30° 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30° 50 190
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 1 (sec) ** PR 08: Feed screw ON in Power 3 (sec) ** PR 08: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 5 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C*) PR 14: Max temperature for Eco phase modulation (C*) PR 15: Temp. to start up/shut down the exchanger (C*) PR 16: Smoke extractor speed in Load wood (rpm) PR 16: Smoke extractor speed in Fire On (rpm)	L0 15 2 30° 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30° 50 190 60 1800 1200	L1 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 30* 50 190 60 1800 1200	L2 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30* 50 190 60 1800 1200	L3 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 1800 1200	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500	L5 15 2 30* 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30* 50 190 60 2200 1500	L6 15 2 30* 3,2 2,4 1,8 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50 190 60 2200 1500	L7 15 2 30° 2,8 2,1 1,8 2,1 1,8 2,1 4 3,5 4 1100 30° 50 190 60 2200 1500
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) ** PR 09: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 5 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (pm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C°) PR 13: Smok extractor speed in Load wood (rpm) PR 16: Smoke extractor speed in Load wood (rpm) PR 16: Smoke extractor speed in Load wood (rpm) PR 16: Smoke extractor speed in Load wood (rpm) PR 16: Smoke extractor speed in Load wood (rpm) PR 17: Smoke extractor speed in Load wood (rpm) PR 16: Smoke extractor speed in Load wood (rpm) PR 17: Smoke extractor speed in Load wood (rpm) PR 17: Smoke extractor speed in Load wood (rpm) PR 18: Smoke extractor speed in Load wood (rpm) PR 16: Smoke extractor speed in Load wood (rpm) <td>L0 15 2 30° 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30° 50 190 60 1800 1200</td> <td>L1 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 30* 50 190 60 1800 1200</td> <td>L2 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30* 50 190 60 1800 1200</td> <td>L3 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 1800 1200 900</td> <td>L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1300</td> <td>L5 15 2 30* 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30* 50 190 60 2200 1500 1300</td> <td>L6 15 2 30* 3,2 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50 190 60 2200 1500 1300</td> <td>L7 15 2 30° 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30° 50 190 60 2200 1500 1300</td>	L0 15 2 30° 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30° 50 190 60 1800 1200	L1 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 30* 50 190 60 1800 1200	L2 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30* 50 190 60 1800 1200	L3 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 1800 1200 900	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1300	L5 15 2 30* 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30* 50 190 60 2200 1500 1300	L6 15 2 30* 3,2 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50 190 60 2200 1500 1300	L7 15 2 30° 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30° 50 190 60 2200 1500 1300
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) ** PR 08: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C°) PR 13: Smoke extractor speed in Load wood (rpm) PR 16: Smoke extractor speed in Fire On (rpm) PR 18: Smoke extractor speed in Fower 1 (rpm) PR 18: Smoke extractor speed in Power 1 (rpm) PR 18: Smoke extractor speed in Power 1 (rpm) PR 18: Smoke extractor speed in Power 1 (rpm) PR 18: Smoke extractor speed in Power 1 (rpm)	L0 15 2 30° 3.5 2.6 1.8 3.5 2.6 1.8 3.5 4.5 5.2 1100 30° 50 190 60 1800 1800 1200 1050	L1 15 2 30* 2,6 1.8 2,6 3,4 4,2 5 1100 30* 50 190 60 1800 1200 900 1050	L2 15 2 30° 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30° 50 190 60 1800 1200 1200 1050	L3 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 1,8 3,5 4 1100 30* 50 190 60 1800 1200 900 1050	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1300 1400	L5 15 2 30° 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30° 50 190 60 2200 1500 1300 1400	L6 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30* 50 190 60 2200 1500 1300 1300 1400	L7 15 2 30° 2.8 2.1 1.8 2.1 2.8 3.5 4 1100 30° 50 190 60 2200 1500 1300 1400
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) ** PR 08: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Themperature for the start-up phase (C*) PR 14: Max temperature for Eco phase modulation (C*) PR 15: Temp. to start up/shut down the exchanger (C*) PR 16: Smoke extractor speed in Load wood (rpm) PR 17: Smoke extractor speed in Power 1 (rpm) PR 18: Smoke extractor speed in Power 2 (rpm) PR 19: Smoke extractor speed in Power 3 (rpm) PR 19: Smoke extractor speed in Power 3 (rpm) PR 19: Smoke extractor speed in Power 3 (rpm) PR 19: Smoke extractor speed in Power 3 (rpm) PR 20: Smoke extractor speed in Power 3 (rpm) PR 20: Smoke extractor speed in Power 4 (rpm)	L0 15 2 30* 3,5 2,6 1,8 3,5 4,5 4,5 4,5 4,5 1100 30* 50 190 60 1800 190 60 1200 1050 1200 1350	L1 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 30* 50 190 60 1800 1200 900 1050 1200 1350	L2 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30* 50 190 60 1800 1200 900 1050 1200 1350	L3 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 1800 1200 900 1050 1350	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1300 1400 1500 1700	L5 15 2 30* 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30* 50 190 60 2200 1500 1300 1300 1400 1500 1700	L6 15 2 30* 3,2 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50 190 60 2200 1500 1300 1300 1400 1500 1700	L7 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 2200 1500 1300 1400 1500 1700
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) ** PR 08: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 5 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C°) PR 14: Max temperature for Eco phase modulation (C*) PR 16: Smoke extractor speed in Load wood (rpm) PR 17: Smoke extractor speed in Fire On (rpm) PR 18: Smoke extractor speed in Power 2 (rpm) PR 19: Smoke extractor speed in Power 3 (rpm) PR 19: Smoke extractor speed in Power 2 (rpm) PR 20: Smoke extractor speed in Power 3 (rpm) PR 21: Smoke extractor speed in Power 4 (rpm) PR 22: Smoke extractor speed in Power 4 (rpm) PR 21: Smoke extractor speed in Power 5 (rpm)	L0 15 2 30° 3,5 2,6 1,8 3,5 4,5 5,2 1100 30° 50 190 60 1800 1200 1050 1200 1200 1200 1350 1500	L1 15 2 30° 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30° 50 190 60 1800 1200 1050 1200 1350 1500	L2 15 2 30° 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30° 50 190 60 1800 1800 1800 1050 1200 1350 1500	L3 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 1800 1200 1050 1200 1350 1500	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1300 1400 1500 1700 1800	L5 15 2 30° 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 30° 50 190 60 2200 1500 1300 1400 1500 1300 1400 1500 1700 1800	L6 15 2 30° 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30° 50 190 60 2200 1500 1300 1400 1500 1500 1700 1800	L7 15 2 30° 2,1 1,8 2,1 2,8 3,5 4 1100 30° 50 190 60 2200 1500 190 60 2200 1500 1300 1400 1500 1700 1800
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) ** PR 08: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 5 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C*) PR 14: Max temperature for the start-up phase (C*) PR 15: Temp. to start up/shut down the exchanger (C*) PR 16: Smoke extractor speed in Load wood (rpm) PR 17: Smoke extractor speed in Fire On (rpm) PR 18: Smoke extractor speed in Power 1 (rpm) PR 19: Smoke extractor speed in Power 2 (rpm) PR 20: Smoke extractor speed in Power 3 (rpm) PR 21: Smoke extractor speed in Power 3 (rpm) PR 22: Smoke extractor speed in Power 4 (rpm) PR 22: Smoke extractor speed in Power 5 (rpm) PR 22: Smoke extractor speed in Power 5 (rpm)	L0 15 2 30° 3.5 2.6 1.8 2.8 3.5 4.5 5.2 1100 30° 50 190 60 1800 1200 900 1050 1200 1350 10	L1 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 30* 50 190 60 190 60 1200 900 900 1050 1200 1350 10	L2 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30* 50 190 1000 1200 1050 1050 1050 10	L3 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 1800 1200 1050 1050 100 100	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1300 1400 1500 1400 1500 1400 10	L5 15 2 30° 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30° 50 190 60 2200 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 160 160 160 100 100 100 100 1	L6 15 2 30* 3,2 2,4 1,8 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50 190 60 2200 1500 1500 1500 1500 1500 1500 160 160 160 10 10	L7 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 2200 1500 1300 1300 1400 1500 1400 1500 1400 1500 1400 1500 1800 10 10 10 10 10 10 10 10 10
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 1 (sec) ** PR 08: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C*) PR 14: Max temperature for the start-up phase (C*) PR 15: Temp. to start up/shut down the exchanger (C*) PR 16: Snoke extractor speed in Load wood (rpm) PR 17: Smoke extractor speed in Power 1 (rpm) PR 18: Smoke extractor speed in Power 2 (rpm) PR 19: Smoke extractor speed in Power 3 (rpm) PR 19: Smoke extractor speed in Power 1 (rpm) PR 22: Smoke extractor speed in Power 5 (rpm) PR 22: Smoke extractor speed in Power 5 (rpm) PR 22: Smoke extractor speed in Power 5 (rpm) PR 22: Air exchanger speed in Power 1 PR 22: Air exchanger speed in Power 1	L0 15 2 30° 3,5 2,6 1,8 2,8 2,8 4,5 5,2 1100 30° 50 190 60 190 60 1200 900 1050 1200 1350 1500 1220	L1 15 2 30* 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30* 50 190 60 190 60 1200 1200 1350 1500 10 12	L2 15 2 30* 3.2 2.4 1.8 2.4 1.8 2.4 3.2 3.8 4.5 1100 30* 50 190 60 190 60 190 60 190 1200 1200 1350 1500 10 12	L3 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 1200 900 1050 1200 1350 1500 10 12	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1300 1400 1500 1700 1800 10 12	L5 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 100 1500 1500 1500 1700 1800 10 12	L6 15 2 30* 3,2 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50 190 60 2200 1500 1300 1400 1500 1700 1800 10 12	L7 15 2 30° 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30° 50 190 60 2200 1500 1500 1300 1400 1500 1700 1800 10 10 12
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) ** PR 08: Feed screw ON in Power 3 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 5 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C*) PR 14: Max temperature for the start-up phase (C*) PR 15: Temp. to start up/shut down the exchanger (C*) PR 16: Smoke extractor speed in Load wood (rpm) PR 17: Smoke extractor speed in Fire On (rpm) PR 18: Smoke extractor speed in Power 1 (rpm) PR 19: Smoke extractor speed in Power 2 (rpm) PR 20: Smoke extractor speed in Power 3 (rpm) PR 21: Smoke extractor speed in Power 3 (rpm) PR 22: Smoke extractor speed in Power 4 (rpm) PR 22: Smoke extractor speed in Power 5 (rpm) PR 22: Smoke extractor speed in Power 5 (rpm)	L0 15 2 30° 3.5 2.6 1.8 2.8 3.5 4.5 5.2 1100 30° 50 190 60 1800 1200 900 1050 1200 1350 10	L1 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 30* 50 190 60 190 60 1200 900 900 1050 1200 1350 10	L2 15 2 30* 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30* 50 190 1000 1200 1050 1050 1050 10	L3 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 1800 1200 1050 1050 100 100	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1300 1400 1500 1400 1500 1400 10	L5 15 2 30° 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30° 50 190 60 2200 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 160 160 160 100 100 100 100 1	L6 15 2 30* 3,2 2,4 1,8 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50 190 60 2200 1500 1500 1500 1500 1500 1500 160 160 160 10 10	L7 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 2200 1500 1300 1300 1400 1500 1400 1500 1400 1500 1400 1500 1800 10 10 10 10 10 10 10 10 10
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 2 (sec) ** PR 08: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 4 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C*) PR 14: Max temperature for Eco phase modulation (C*) PR 15: Temp. to start up/shut down the exchanger (C*) PR 16: Smoke extractor speed in Load wood (rpm) PR 17: Smoke extractor speed in Fire On (rpm) PR 18: Smoke extractor speed in Power 1 (rpm) PR 19: Smoke extractor speed in Power 1 (rpm) PR 20: Smoke extractor speed in Power 2 (rpm) PR 21: Smoke extractor speed in Power 1 (rpm) PR 22: Smoke extractor speed in Power 3 (rpm) PR 22: Smoke extractor speed in Power 1 (rpm) PR 22: Smoke extractor speed in Power 1 PR 22: Smoke extractor speed in Power 3 (rpm)	L0 15 2 30° 3.5 2.6 1.8 2.8 3.5 4.5 5.2 1100 30° 50 190 60 1000 1200 900 1200 1050 1200 1350 1500 1200 1350 1200 1200 1350 120	L1 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 30* 50 190 60 190 60 1200 900 1050 1200 1050 1200 1350 1500 1200 1350 1350 1500 120 120 14 18 22 44	L2 15 2 30° 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30° 50 190 60 1800 1200 900 1050 1200 1050 1200 1350 1500 1200 1350 1200 122 18 18 22 44	L3 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 1,8 3,5 4 1100 30* 50 190 60 1800 1200 1050 1200 1350 1500 1200 1350 1200 1350 1200 122 14 12 12 12 12 12 12 12 12 12 12	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1500 1500 1400 1500 1400 1500 1400 1500 1400 1500 1400 16 22 44 44	L5 15 2 30° 3.4 2.6 1.8 2.6 1.8 2.6 3.4 4.2 5 1100 30° 50 190 60 2200 1500 1500 1500 1500 1500 1500 1500 1500 1700 1800 1700 1800 10 12 18 22 44	L6 15 2 30* 3,2 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50 190 60 2200 1500 1500 1500 1500 1500 1500 1500 1400 1500 1700 1800 1700 1800 10 12 18 22 44	L7 15 2 30° 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30° 50 190 60 2200 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1400 1500 1500 1400 1500 1700 1800 190 190 190 190 190 190 1900 1
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Load wood feed screw ON (sec) PR 07: Feed screw ON in Power 1 (sec) ** PR 08: Feed screw ON in Power 2 (sec) ** PR 09: Feed screw ON in Power 3 (sec) ** PR 10: Feed screw ON in Power 4 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C°) PR 14: Max temperature for the start-up phase (C°) PR 15: Temp. to start up/shut down the exchanger (C°) PR 16: Smoke extractor speed in Load wood (rpm) PR 17: Smoke extractor speed in Power 1 (rpm) PR 18: Smoke extractor speed in Power 1 (rpm) PR 19: Smoke extractor speed in Power 2 (rpm) PR 20: Smoke extractor speed in Power 2 (rpm) PR 21: Smoke extractor speed in Power 1 (rpm) PR 22: Smoke extractor speed in Power 2 PR 23: Air exchanger speed in Power 4 PR 24: Air exchanger speed in Power 4 PR 24: Air exchanger speed in Power 4 PR 24: Air e	L0 15 2 30° 3.5 2.6 1.8 2.8 3.5 4.5 5.2 1100 30° 50 190 60 1000 1200 900 1200 1050 1200 1350 1500 1200 1350 1200 1200 1350 120	L1 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 30* 50 190 60 190 60 1200 900 1050 1200 1050 1200 1350 1500 1200 1350 1350 1500 120 120 14 18 22 44	L2 15 2 30° 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30° 500 1900 60 1800 1900 1000 1050 1200 1050 1500 10 12 18 22 44 2500	L3 15 2 30* 2,8 2,1 1,8 2,1 2,8 3,5 4 1100 30* 50 190 60 1200 900 1050 1200 1350 1500 1050 1220 1350 1500 1050 1220 1350 1500 1050	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1300 1400 1500 1300 1400 1500 1700 1800 1700 1800 10 12 18 22 44 2500	L5 15 2 30* 3,4 2,6 1,8 2,6 3,4 4,2 5 1100 30* 50 190 60 2200 1500 1500 1300 1400 1500 1700 1800 10 12 18 22 44 250	L6 15 2 30* 3,2 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50 190 60 2200 1500 190 100 1500 1700 1800 10 12 18 22 44 2500	L7 15 2 30° 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30° 50 190 60 2200 1500 1500 1300 1400 1500 1700 1800 1700 1800 1700 1800 10 12 18 22 44 2500
SATURN – OMEGA – PLANET – Versione B2 – Display LCD PR 01: Max lighting time (min) PR 02: Fire On (min) PR 03: Interval between the cleaning of the grate (min) PR 04: Load wood feed screw ON (sec) PR 04: Load wood feed screw ON (sec) PR 05: Fire On feed screw ON (sec) PR 06: Feed screw ON in Power 1 (sec) ** PR 07: Feed screw ON in Power 3 (sec) ** PR 08: Feed screw ON in Power 4 (sec) ** PR 09: Feed screw ON in Power 5 (sec) ** PR 10: Feed screw ON in Power 5 (sec) ** PR 11: Shutdown revolutions after alarm (rpm) PR 12: Duration of grate cleaning (sec) PR 13: Min temperature for the start-up phase (C*) PR 14: Max temperature for Eco phase modulation (C*) PR 15: Temp. to start up/shut down the exchanger (C*) PR 17: Smoke extractor speed in Load wood (rpm) PR 18: Smoke extractor speed in Power 1 (rpm) PR 19: Smoke extractor speed in Power 2 (rpm) PR 20: Smoke extractor speed in Power 3 (rpm) PR 21: Smoke extractor speed in Power 1 (rpm) PR 22: Smoke extractor speed in Power 3 (rpm) PR 22: Smoke extractor speed in Power 1 (rpm) PR 22: Smoke extractor speed in Power 3 (rpm) PR 22: Smoke extractor speed in Power 3 (rpm) <	L0 15 2 30° 3,5 2,6 1,8 3,5 2,6 1,8 3,5 4,5 5,2 1100 30° 50 190 60 1800 1200 1050 1200 1350 1200 1350 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 10 10 12 10 10 10 12 10 12 10 10 10 10 10 10 10 10 10 10	L1 15 2 30* 3.4 2.6 1.8 2.6 3.4 4.2 5 1100 30* 50 190 60 1800 1200 100 1200 1350 1200 1200 1200 1350 1200 100 1	L2 15 2 30° 3.2 2.4 1.8 2.4 3.2 3.8 4.5 1100 30° 50 190 60 1800 1200 900 1050 1200 1050 1200 1350 1500 1200 1350 1200 122 18 18 22 44	L3 15 2 30* 2,8 2,1 1,8 2,1 1,8 2,1 1,8 3,5 4 1100 30* 50 190 60 1800 1200 1050 1200 1350 1500 1200 1350 1200 1350 1200 122 14 12 12 12 12 12 12 12 12 12 12	L4 15 2 30* 3,5 2,6 1,8 2,8 3,5 4,5 5,2 1100 30* 50 190 60 2200 1500 1500 1500 1400 1500 1400 1500 1400 1500 1400 1500 1400 16 22 44 44	L5 15 2 30° 3.4 2.6 1.8 2.6 1.8 2.6 3.4 4.2 5 1100 30° 50 190 60 2200 1500 1500 1500 1500 1500 1500 1500 1500 1700 1800 1700 1800 10 12 18 22 44	L6 15 2 30* 3,2 2,4 1,8 2,4 3,2 3,8 4,5 1100 30* 50 190 60 2200 1500 1500 1500 1500 1500 1500 1500 1400 1500 1700 1800 1700 1800 10 12 18 22 44	L7 15 2 30° 2,8 2,1 1,8 2,1 1,8 2,1 2,8 3,5 4 1100 30° 50 190 60 2200 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1400 1500 1500 1400 1500 1700 1800 190 190 190 190 190 190 1900 1

N.B. In grey are the parameters that we strongly advise NOT to modifiy

* In power 1 e power 2 the clearing of the combustion pot is excluded.

Service Manual - cod. 89070072 - UK



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Rev. 09 07/11 – M.C.

MERCURY 6 kW – Versione A1-A2-A3 - Display LCD	MO	M1	M2	М3	Μ4	M5	M6	Μ7
PR 01: Max lighting time (min)	15	15	15	15	15	15	15	15
PR 02: Fire On (min)	2	2	2	2	2	2	2	2
PR 03: Interval between the cleaning of the grate (min)	30*	30*	30*	30*	30*	30*	30*	30*
PR 04: Load wood feed screw ON (sec)	3,5	3,4	3,2	2,8	3,5	3,4	3,2	2,8
PR 05: Fire On feed screw ON (sec)	2,6	2,6	2,4	2,1	2,6	2,6	2,4	2,1
PR 06: Feed screw ON in Power 1 (sec) **	1,8	1,8	1,8	1,5	1,8	1,8	1,8	1,5
PR 07: Feed screw ON in Power 2 (sec) **	2,6	2,4	2,1	1,8	2,6	2,4	2,1	1,8
PR 08: Feed screw ON in Power 3 (sec) **	3,2	3,0	2,8	2,5	3,2	3,0	2,8	2,5
PR 09: Feed screw ON in Power 4 (sec) **	3,8	3,5	3,2	2,9	3,8	3,5	3,2	2,9
PR 10: Feed screw ON in Power 5 (sec) **	4,5	4,1	3,7	3,4	4,5	4,1	3,7	3,4
PR 11: Shutdown revolutions after alarm (rpm)	1100	1100	1100	1100	1100	1100	1100	1100
PR 12: Duration of grate cleaning (sec)	30*	30*	30*	30*	30*	30*	30*	30*
PR 13: Min temperature for the start-up phase (C°)	50	50	50	50	50 190	50	50	50
PR 14: Max temperature for Eco phase modulation (C°)	190	190	190	190		190	190	190
PR 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60
PR 16: Smoke extractor speed in Load wood (rpm)	1800	1800	1800	1800	2200	2200	2200	2200
PR 17: Smoke extractor speed in Fire On (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 18: Smoke extractor speed in Power 1 (rpm)	900	900	900	900	1200	1200	1200	1200
PR 19: Smoke extractor speed in Power 2 (rpm)	1000	1000	1000	1000	1300	1300	1300	1300
PR 20: Smoke extractor speed in Power 3 (rpm)	1100	1100	1100	1100	1400	1400	1400	1400
PR 21: Smoke extractor speed in Power 4 (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 22: Smoke extractor speed in Power 5 (rpm)	1300	1300	1300	1300	1600	1600	1600	1600
PR 23: Air exchanger speed in Power 1	35	35	35	35	35	35	35	35
PR 24: Air exchanger speed in Power 2	36	36	36	36	36	36	36	36
PR 25: Air exchanger speed in Power 3	38	38	38	38	38	38	38	38
PR 26: Air exchanger speed in Power 4	41	41	41	41	41	41	41	41
PR 27: Air exchanger speed in Power 5	68	68	68	68	68	68	68	68
PR 28: smoke extractor parameter in grate cleaning (rpm)	2500	2500	2500	2500	2500	2500	2500	2500
PR 29: time for the restart up in eco-stop (min)	20'	20'	20'	20'	20'	20'	20'	20'
PR 30: start up differential when hot (C°)	5	5	5	5	5	5	5	5
N.B. In grey are the parameters that we strongly advise NOT to modi	fiy	* In powe	r 1 e power 2	the clearing	of the comb	ustion pot is	excluded.	
MERCURY 8 kW – Vers. A4 – Micropr. integrato - Display LO	CD MO	M1	M2	М3	M4	M5	M6	M7
PR 01: Max lighting time (min)	15	15	15	15	15	15	15	15
PR 02: Fire On (min)	2	2	2	2	2	2	2	2
PR 03: Interval between the cleaning of the grate (min)	30*	30*	30*	30*	30*	30*	30*	30*
PR 04: Load wood feed screw ON (sec)	3,5	3,4	3,2	2,8	30* 3,5	3,4	3,2	2,8
PR 05: Fire On feed screw ON (sec)	2,6	2,6	2,4	2,1	2,6	2,6	2,4	2,1
PR 06: Feed screw ON in Power 1 (sec) **	1,8	1,8	1,8	1,5	1,8	1,8	1,8	1,5
PR 07: Feed screw ON in Power 2 (sec) **	2.6	2.4	2.1	1.8	2,6	2,4	2.1	1,8

PR 06: Feed screw ON in Power 1 (sec) **	1,8	1,8	1,8	1,5	1,8	1,8	1,8	1,5
PR 07: Feed screw ON in Power 2 (sec) **	2,6	2,4	2,1	1,8	2,6	2,4	2,1	1,8
PR 08: Feed screw ON in Power 3 (sec) **	3,2	3,0	2,8	2,5	3,2	3,0	2,8	2,5
PR 09: Feed screw ON in Power 4 (sec) **	3,8	3,5	3,2	2,9	3,8	3,5	3,2	2,9
PR 10: Feed screw ON in Power 5 (sec) **	4,5	4,1	3,7	3,4	4,5	4,1	3,7	3,4
PR 11: Shutdown revolutions after alarm (rpm)	1100	1100	1100	1100	1100	1100	1100	1100
PR 12: Duration of grate cleaning (sec)	30*	30*	30*	30*	30*	30*	30*	30*
PR 13: Min temperature for the start-up phase (C°)	50	50	50	50	50	50	50	50
PR 14: Max temperature for Eco phase modulation (C°)	190	190	190	190	190	190	190	190
PR 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60
PR 16: Smoke extractor speed in Load wood (rpm)	1800	1800	1800	1800	2200	2200	2200	2200
PR 17: Smoke extractor speed in Fire On (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 18: Smoke extractor speed in Power 1 (rpm)	900	900	900	900	1200	1200	1200	1200
PR 19: Smoke extractor speed in Power 2 (rpm)	1000	1000	1000	1000	1300	1300	1300	1300
PR 20: Smoke extractor speed in Power 3 (rpm)	1100	1100	1100	1100	1400	1400	1400	1400
PR 21: Smoke extractor speed in Power 4 (rpm)	1200	1200	1200	1200	1500	1500	1500	1500
PR 22: Smoke extractor speed in Power 5 (rpm)	1300	1300	1300	1300	1600	1600	1600	1600
PR 23: Air exchanger speed in Power 1	30	30	30	30	30	30	30	30
PR 24: Air exchanger speed in Power 2	32	32	32	32	32	32	32	32
PR 25: Air exchanger speed in Power 3	34	34	34	34	34	34	34	34
PR 26: Air exchanger speed in Power 4	36	36	36	36	36	36	36	36
PR 27: Air exchanger speed in Power 5	68	68	68	68	68	68	68	68
PR 28: smoke extractor parameter in grate cleaning (rpm)	2500	2500	2500	2500	2500	2500	2500	2500
PR 29: time for the restart up in eco-stop (min)	20'	20'	20'	20'	20'	20'	20'	20'
PR 30: start up differential when hot (C°)	5	5	5	5	5	5	5	5

N.B. In grey are the parameters that we strongly advise NOT to modify

* In power 1 e power 2 the clearing of the combustion pot is **excluded**.

POLAR/NOVA Ver. PN AM 1 Display LED				Versio	ne AIR							Versione	MULTIAIF	<u> </u>		
POLANNOVA Vel. PN AWI I Display LED	A0	A1	A2	A3	A4	A5	A6	A7	B0	B1	B2	B3	B4	B5	B6	B7
PR 01: Max lighting time (min)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
PR 02: Fire On (min)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
PR 03: Interval between the cleaning of the grate (min)	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*
PR 04: Load wood feed screw ON (sec)	3,9	3,7	3,5	3,1	3,9	3,7	3,5	3,1	3,9	3,7	3,5	3,1	3,9	3,7	3,5	3,1
PR 05: Fire On feed screw ON (sec)	3	2,8	2,6	2,3	3	2,8	2,6	2,3	3	2,8	2,6	2,3	3	2,8	2,6	2,3
PR 06: Feed screw ON in Power 1 (sec) **	2	2	2	2	2	2	2	2	2,3	2,2	2	2	2,3	2,2	2	2
PR 07: Feed screw ON in Power 2 (sec) **	2,9	2,7	2,5	2,2	2,9	2,7	2,5	2,2	3	2,8	2,6	2,3	3	2,8	2,6	2,3
PR 08: Feed screw ON in Power 3 (sec) **	3,6	3,4	3,2	2,8	3,6	3,4	3,2	2,8	3,9	3,7	3,5	3,1	3,9	3,7	3,5	3,1
PR 09: Feed screw ON in Power 4 (sec) **	4,5	4,3	3,9	3,6	4,5	4,3	3,9	3,6	5,2	4,9	4,5	4,2	5,2	4,9	4,5	4,2
PR 10: Feed screw ON in Power 5 (sec) **	5,2	4,9	4,5	4	5,2	4,9	4,5	4	6,3	6	5,6	5,1	6,3	6	5,6	5,1
PR 11: Shutdown revolutions after alarm (rpm)	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
PR 12: Duration of grate cleaning (sec)	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30'
PR 13: Min temperature for the start-up phase (C°)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
PR 14: Max temperature for Eco phase modulation (C°)	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190
PR 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
PR 16: Smoke extractor speed in Load wood (rpm)	2000	2000	2000	2000	2200	2200	2200	2200	2000	2000	2000	2000	2200	2200	2200	220
PR 17: Smoke extractor speed in Fire On (rpm)	1350	1350	1350	1350	1600	1600	1600	1600	1350	1350	1350	1350	1600	1600	1600	160
PR 18: Smoke extractor speed in Power 1 (rpm)	1000	1000	1000	1000	1300	1300	1300	1300	1000	1000	1000	1000	1300	1300	1300	130
PR 19: Smoke extractor speed in Power 2 (rpm)	1070	1070	1070	1070	1370	1370	1370	1370	1080	1080	1080	1080	1380	1380	1380	138
PR 20: Smoke extractor speed in Power 3 (rpm)	1170	1170	1170	1170	1470	1470	1470	1470	1210	1210	1210	1210	1510	1510	1510	151
PR 21: Smoke extractor speed in Power 4 (rpm)	1260	1260	1260	1260	1560	1560	1560	1560	1350	1350	1350	1350	1650	1650	1650	165
PR 22: Smoke extractor speed in Power 5 (rpm)	1350	1350	1350	1350	1650	1650	1650	1650	1500	1500	1500	1500	1800	1800	1800	180
PR 23: Air exchanger speed in Power 1	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
R 24: Air exchanger speed in Power 2	15	15	15	15	15	15	15	15	16	16	16	16	16	16	16	16
PR 25: Air exchanger speed in Power 3	18	18	18	18	18	18	18	18	21	21	21	21	21	21	21	21
PR 26: Air exchanger speed in Power 4	23	23	23	23	23	23	23	23	25	25	25	25	25	25	25	25
PR 27: Air exchanger speed in Power 5	28	28	28	28	28	28	28	28	32	32	32	32	32	32	32	32
N.B. In grey are the parameters that w	e strongly	/ advise	NOT to	modifiy			* In pov	wer 1 ep	ower 2 th	ne clearir	ng of the	combust	ion pot is	exclude	ed.	

Service Manual – cod. 89070072 – UK

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POLAR/NOVA Ver. PN AM 2 Display LED				Versio	ne AIR							Versione	MULTIAIR			
	A0	A1	A2	A3	A4	A5	A6	A7	B0	B1	B2	B3	B4	B5	B6	B7
PR 01: Max lighting time (min)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
R 02: Fire On (min)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
R 03: Interval between the cleaning of the grate (min)	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*
R 04: Load wood feed screw ON (sec)	3,9	3,7	3,5	3,1	3,9	3,7	3,5	3,1	3,9	3,7	3,5	3,1	3,9	3,7	3,5	3,1
R 05: Fire On feed screw ON (sec)	3	2,8	2,6	2,3	3	2,8	2,6	2,3	3	2,8	2,6	2,3	3	2,8	2,6	2,3
PR 06: Feed screw ON in Power 1 (sec) **	2	2	2	2	2	2	2	2	2,3	2,2	2	2	2,3	2,2	2	2
R 07: Feed screw ON in Power 2 (sec) **	2,9	2,7	2,5	2,2	2,9	2,7	2,5	2,2	3	2,8	2,6	2,3	3	2,8	2,6	2,3
R 08: Feed screw ON in Power 3 (sec) **	3,6	3,4	3,2	2,8	3,6	3,4	3,2	2,8	3,9	3,7	3,5	3,1	3,9	3,7	3,5	3,1
R 09: Feed screw ON in Power 4 (sec) **	4,5	4,3	3,9	3,6	4,5	4,3	3,9	3,6	5,2	4,9	4,5	4,2	5,2	4,9	4,5	4,2
PR 10: Feed screw ON in Power 5 (sec) **	5,2	4,9	4,5	4	5,2	4,9	4,5	4	6,3	6	5,6	5,1	6,3	6	5,6	5,1
R 11: Shutdown revolutions after alarm (rpm)	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
R 12: Duration of grate cleaning (sec)	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*
R 13: Min temperature for the start-up phase (C°)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
R 14: Max temperature for Eco phase modulation (C°)	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190
R 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
R 16: Smoke extractor speed in Load wood (rpm)	2000	2000	2000	2000	2200	2200	2200	2200	2000	2000	2000	2000	2200	2200	2200	2200
PR 17: Smoke extractor speed in Fire On (rpm)	1450	1450	1450	1450	1700	1700	1700	1700	1450	1450	1450	1450	1700	1700	1700	1700
R 18: Smoke extractor speed in Power 1 (rpm)	1100	1100	1100	1100	1400	1400	1400	1400	1100	1100	1100	1100	1400	1400	1400	1400
R 19: Smoke extractor speed in Power 2 (rpm)	1170	1170	1170	1170	1470	1470	1470	1470	1180	1180	1180	1180	1480	1480	1480	1480
R 20: Smoke extractor speed in Power 3 (rpm)	1270	1270	1270	1270	1570	1570	1570	1570	1310	1310	1310	1310	1610	1610	1610	1610
R 21: Smoke extractor speed in Power 4 (rpm)	1360	1360	1360	1360	1660	1660	1660	1660	1450	1450	1450	1450	1750	1750	1750	1750
R 22: Smoke extractor speed in Power 5 (rpm)	1450	1450	1450	1450	1750	1750	1750	1750	1600	1600	1600	1600	1900	1900	1900	1900
R 23: Air exchanger speed in Power 1	9	9	9	9	9	9	9	9	12	12	12	12	12	12	12	12
R 24: Air exchanger speed in Power 2	10	10	10	10	10	10	10	10	16	16	16	16	16	16	16	16
R 25: Air exchanger speed in Power 3	12	12	12	12	12	12	12	12	21	21	21	21	21	21	21	21
R 26: Air exchanger speed in Power 4	18	18	18	18	18	18	18	18	25	25	25	25	25	25	25	25
PR 27: Air exchanger speed in Power 5	28	28	28	28	28	28	28	28	32	32	32	32	32	32	32	32

N.B. In grey are the parameters that we strongly advise NOT to modifiy

In power 1 e power 2 the clearing of the combustion pot is excluded

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DOLAD/NOVA Ver DN AM 2 Display I CD				Versic	one AIR							Versione	MULHAR			
POLAR/NOVA Ver. PN AM 3 Display LCD	A0	A1	A2	A3	A4	A5	A6	A7	B0	B1	B2	B3	B4	B5	B6	B7
PR 01: Max lighting time (min)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
PR 02: Fire On (min)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
PR 03: Interval between the cleaning of the grate (min)	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*
PR 04: Load wood feed screw ON (sec)	3,9	3,7	3,5	3,3	3,9	3,7	3,5	3,3	3,9	3,7	3,5	3,3	3,9	3,7	3,5	3,3
PR 05: Fire On feed screw ON (sec)	3	2,8	2,6	2,4	3	2,8	2,6	2,4	3	2,8	2,6	2,4	3	2,8	2,6	2,4
PR 06: Feed screw ON in Power 1 (sec) **	2	2	2	2	2	2	2	2	2,3	2,2	2	2	2,3	2,2	2	2
PR 07: Feed screw ON in Power 2 (sec) **	2,9	2,7	2,5	2,3	2,9	2,7	2,5	2,3	3	2,8	2,6	2,3	3	2,8	2,6	2,3
PR 08: Feed screw ON in Power 3 (sec) **	3,6	3,4	3,2	3	3,6	3,4	3,2	3	3,9	3,7	3,5	3,1	3,9	3,7	3,5	3,1
PR 09: Feed screw ON in Power 4 (sec) **	4,5	4,3	3,9	3,6	4,5	4,3	3,9	3,6	5,2	4,9	4,5	4,2	5,2	4,9	4,5	4,2
PR 10: Feed screw ON in Power 5 (sec) **	5,2	4,9	4,5	4,1	5,2	4,9	4,5	4,1	6,3	6	5,6	5,1	6,3	6	5,6	5,1
PR 11: Shutdown revolutions after alarm (rpm)	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
PR 12: Duration of grate cleaning (sec)	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*	30*
PR 13: Min temperature for the start-up phase (C°)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
PR 14: Max temperature for Eco phase modulation (C°)	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190	190
PR 15: Temp. to start up/shut down the exchanger (C°)	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
PR 16: Smoke extractor speed in Load wood (rpm)	2000	2000	2000	2000	2200	2200	2200	2200	2000	2000	2000	2000	2200	2200	2200	2200
PR 17: Smoke extractor speed in Fire On (rpm)	1450	1450	1450	1450	1700	1700	1700	1700	1450	1450	1450	1450	1700	1700	1700	1700
PR 18: Smoke extractor speed in Power 1 (rpm)	1100	1100	1100	1100	1400	1400	1400	1400	1100	1100	1100	1100	1400	1400	1400	1400
PR 19: Smoke extractor speed in Power 2 (rpm)	1170	1170	1170	1170	1470	1470	1470	1470	1180	1180	1180	1180	1480	1480	1480	1480
PR 20: Smoke extractor speed in Power 3 (rpm)	1270	1270	1270	1270	1570	1570	1570	1570	1310	1310	1310	1310	1610	1610	1610	1610
PR 21: Smoke extractor speed in Power 4 (rpm)	1360	1360	1360	1360	1660	1660	1660	1660	1450	1450	1450	1450	1750	1750	1750	1750
PR 22: Smoke extractor speed in Power 5 (rpm)	1450	1450	1450	1450	1750	1750	1750	1750	1600	1600	1600	1600	1900	1900	1900	1900
PR 23: Air exchanger speed in Power 1	9	9	9	9	9	9	9	9	10	10	10	10	10	10	10	10
PR 24: Air exchanger speed in Power 2	10	10	10	10	10	10	10	10	12	12	12	12	12	12	12	12
PR 25: Air exchanger speed in Power 3	12	12	12	12	12	12	12	12	21	21	21	21	21	21	21	21
PR 26: Air exchanger speed in Power 4	18	18	18	18	18	18	18	18	25	25	25	25	25	25	25	25
PR 27: Air exchanger speed in Power 5	28	28	28	28	28	28	28	28	32	32	32	32	32	32	32	32
PR 28: smoke extractor parameter in grate cleaning (rpm)	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
PR 29: time for the restart up in eco-stop	20'	20'	20'	20'	20'	20'	20'	20'	20'	20'	20'	20'	20'	20'	20'	20'
PR 30: start up differential when hot (C°)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

N.B. In grey are the parameters that we strongly advise NOT to modify

* In power 1 e power 2 the clearing of the combustion pot is excluded



Page 22

Rev. 09 07/11 – M.C.

OLAR/NOVA - MICROCHIP IDRO_Z - Micro-processor that manage Parameters in UT04 - Password A9:	C0	C1	C2	C3
I: Load wood (min)	15	15	15	15
2: Fire On (min)	2	2	2	2
: Interval between the cleaning of the grate (min)	30*	30*	30*	30*
: Load wood feed screw ON (sec)	2,6	2,3	2,0	1,8
:: Fire On feed screw ON (sec) :: Feed screw on in Power 1 (sec) **	2,6	2,3	2,0	1,8
: Feed screw on in Power 1 (sec) : Feed screw on in Power 2 (sec) **	1,8	1,6 2,3	1,4 2,0	1,2 1,8
3: Feed screw on in Power 3 (sec)	3,5	3,1	2,8	2,4
: Feed screw on in Power 4 (sec)	4,4	3,9	3,4	2,9
): Feed screw on in Power 5 (sec)	5,2	4,7	4,1	3,5
Smoke fan parameter shutting down	100	100	100	100
2: Duration of grate cleaning (sec)	30*	30*	30*	30*
B: Min temperature for the start-up phase (C°)	50	50	50	50
: Max temperature for Eco phase modulation (C°)	259	259	259	259
: Temp. to start up/shut down the exchanger (C°)	90	90	90	90
6: Smoke fan parameter in Load wood (rpm)	115	115	115	115
: Smoke fan parameter in Fire On (rpm)	100	100	100	100
8: Smoke fan parameter in Power 1 (rpm)	90	90	90	90
e: Smoke fan parameter in Power 2 (rpm)	95	95	95	95
): Smoke fan parameter in Power 3 (rpm)	100	100	100	100
: Smoke fan parameter in Power 4 (rpm)	105	105	105	105
:: Smoke fan parameter in Power 5 (rpm)	110	110	110	110
3: Air exchanger speed in Power 1	12	12	12	12
: Air exchanger speed in Power 2	14	14	14	14
: Air exchanger speed in Power 3	18	18	18	18
: Air exchanger speed in Power 4	22	22	22	22
: Air exchanger speed in Power 5	26	<u>26</u> 50	26 50	26 50
: Pump activation temperature Parameters in UT04 Password B9:	UC	UG	00	1 00
:Feed screw on in domestic power (sec)	6,3	5,7	5.0	4,3
:smoke fan parameter in domestic power (Volt)	120	120	5,0	4,3
S:smoke fan parameter in grate cleaning (Volt)	120	120	130	120
:temperature for the restart up in eco-stop	80	80	80	80
start up differential when hot (C°)	5	5	5	5
Parameter in UT04 – Password C9:	J J	Ŭ	Ŭ	Ŭ
actory extractor voltage calibration (-75V +75V)		To be defined card by	card during production).
Parameter in UT04 – Password P0:			5	
mergency extractor voltage calibration (-25V +25V) B. In grey are the parameters that we strongly advise NOT to modify OLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage	es the smoke fan without an E	ower 1 e power 2 the cl NCODER and MELLOR 3.5	5 rpm or MARKLE – KORFF	- 3.3 rpm reduction m
 mergency extractor voltage calibration (-25V +25V) In grey are the parameters that we strongly advise NOT to modify OLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: 	es the smoke fan without an E C0	ower 1 e power 2 the cl NCODER and MELLOR 3.6 C1	learing of the combusti 5 rpm or MARKLE – KORFF C2	- 3.3 rpm reduction m C3
nergency extractor voltage calibration (-25V +25V) B. In grey are the parameters that we strongly advise NOT to modify OLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min)	es the smoke fan without an E	ower 1 e power 2 the cl NCODER and MELLOR 3.5	learing of the combusti	- 3.3 rpm reduction m
nergency extractor voltage calibration (-25V +25V) B. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) :: Fire On (min)	es the smoke fan without an E C0 15	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15	learing of the combusti 5 rpm or MARKLE – KORFf C2 15	- 3.3 rpm reduction m C3 15
hergency extractor voltage calibration (-25V +25V) h. In grey are the parameters that we strongly advise NOT to modify OLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Linterval between the cleaning of the grate (min)	es the smoke fan without an E C0 15 2	ower 1 e power 2 the cl NCODER and MELLOR 3.6 C1 15 2	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2	3.3 rpm reduction m C3 15 2
nergency extractor voltage calibration (-25V +25V) 3. In grey are the parameters that we strongly advise NOT to modify OLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec)	es the smoke fan without an E C0 15 2 30*	ower 1 e power 2 the cl C1 15 2 30* 2,4 2,4	learing of the combusti 5 rpm or MARKLE – KORFT C2 15 2 30* 2,2 2,2	- 3.3 rpm reduction m C3 15 2 30*
nergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Feed screw on in Power 1 (sec) **	Constraint Constraint 15 2 30* 2,8 2,8 1,9	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15 2 30* 2,4 1,7	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2 30* 2,2 2,2 1,5	3.3 rpm reduction m C3 15 2 30* 1,9 1,3
nergency extractor voltage calibration (-25V +25V) 3. In grey are the parameters that we strongly advise NOT to modify OLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Fied screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) **	es the smoke fan without an E C0 15 2 30* 2,8 2,8 2,8 1,9 2,8	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15 2 30* 2,4 2,4 1,7 2,5	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2,2 30* 2,2 2,2 1,5 2,2	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9
nergency extractor voltage calibration (-25V +25V) 3. In grey are the parameters that we strongly advise NOT to modify OLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Freed screw on in Power 1 (sec) ** : Feed screw on in Power 3 (sec)	CO 15 2 30* 2,8 1,9 2,8 3,7	ower 1 e power 2 the cl CODER and MELLOR 3.8 C1 15 2 30* 2,4 1,7 2,5 3,3	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2,2 2,2 1,5 2,2 1,5 2,2 2,9	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5
nergency extractor voltage calibration (-25V +25V) B. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Freed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec)	Sthe smoke fan without an E C0 15 2 30* 2,8 1,9 2,8 3,7 4,6	ower 1 e power 2 the cl NCODER and MELLOR 3.5 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2 30* 2,2 1,5 2,2 1,5 2,2 2,9 3,6	2.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 3,1
nergency extractor voltage calibration (-25V +25V) B. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Free On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec)	Set the smoke fan without an E C0 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5	ower 1 e power 2 the cl NCODER and MELLOR 3.5 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9	learing of the combusti 5 rpm or MARKLE – KORFf C2 15 2,2 2,2 1,5 2,2 2,9 3,6 4,3	C3 15 2 30* 1,9 1,3 2,5 3,1 3,7
nergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Freed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down	CO 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5 100	Ower 1 e power 2 the cl CODER and MELLOR 3.5 C1 15 2 30* 2,4 1,7 2,5 3,3 4,1 4,9 100	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2 30* 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100	C3 15 2 30* 1,9 1,3 2,5 3,1 3,7
nergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Semoke fan parameter shutting down : Duration of grate cleaning (sec)	CO CO 15 2 30* 2,8 2,8 1,9 2,8 3,7 4,6 5,5 100 30*	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30*	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2,2 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100 30*	C3 15 2 30* 1,9 1,3 1,9 3,1 3,7 100 30*
nergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Fied of feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) ** : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°)	CO 15 2 30* 2,8 1,9 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30*
nergency extractor voltage calibration (-25V +25V) B. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) ** : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°)	CO 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259	ower 1 e power 2 the cl CODER and MELLOR 3.8 C1 15 2 30* 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50
hergency extractor voltage calibration (-25V +25V) B. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°)	CO 15 2 30* 2,8 1,9 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90	Learing of the combusti C2 15 2 30* 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 5,0 30* 50 259 90	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90
nergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Freed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Max temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Termp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm)	Solution Solution	ower 1 e power 2 the cl NCODER and MELLOR 3.5 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115	learing of the combusti 5 rpm or MARKLE – KORF C2 15 2,2 2,2 1,5 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115
hergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Freed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Max temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Fire On (rpm)	CO 15 2 30* 2,8 1,9 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90	Learing of the combusti C2 15 2 30* 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 5,0 30* 50 259 90	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90
nergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Free On feed screw ON (sec) : Freed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Power 1 (rpm)	CO 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 259 90 115 100	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15 2 30* 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100	Learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2 30* 2,2 1,5 2,2 1,5 2,2 3,6 4,3 100 30* 50 259 90 115 100	3.3 rpm reduction m C3 15 2 30* 1,9 1,9 1,3 2,5 3,1 3,7 100 30* 50 259 90 115 100
nergency extractor voltage calibration (-25V +25V) 3. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fiee On feed screw ON (sec) : Fiee On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) ** : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Fire On (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 2 (rpm)	Co 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115	ower 1 e power 2 the cl CC1 15 2 30* 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100	learing of the combusti 5 rpm or MARKLE – KORF 2 15 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115 100 90	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90
nergency extractor voltage calibration (-25V +25V) 3. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Fire On feed screw ON (sec) : Fied screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) ** : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 2 (rpm) : Smoke fan parameter in Power 3 (rpm)	CO 15 2 30* 2,8 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 990 90 95	ower 1 e power 2 the cl CODER and MELLOR 3.8 C1 15 2 30* 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 90 90 95	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115 100 90 95	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 95
hergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Freed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Max temperature for the start-up phase (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 2 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm)	CO CO 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 90 95 100	ower 1 e power 2 the cl CODER and MELLOR 3.8 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 90 95 100	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2 30* 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 3,6 4,3 100 30* 50 259 90 115 100 95 100 105 110	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 95 100
hergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fre On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 2 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 1 (rpm)	CO CO 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 90 115 100 90 115 100 90 115 100 105 110 12	ower 1 e power 2 the cl CC1 15 2 30* 2,4 1,7 2,5 3,3 4,1 100 30* 50 259 90 115 100 30* 50 259 90 115 100 90 115 100 12	learing of the combusti 5 rpm or MARKLE – KORFF C2 15 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115 100 90 95 100 105 110 12	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 115 100 90 115 100 90 110 12
hergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 2 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 2	Co Co 15 2 30* 2,8 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 30* 50 259 90 115 100 95 100 105 110 12 14	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 90 95 100 100 100 100 110 110 12 14	learing of the combusti 5 rpm or MARKLE – KORF C2 15 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115 100 90 95 100 105 110 100 110 110 112 14	3.3 rpm reduction m C3 15 2 30* 1,9 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 95 100 105 110 12 14
nergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Fied of feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) ** : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 2 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Smoke fan parameter in Power 5 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 3 : Air exchanger speed in Power 3	CO CO 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 90 95 100 95 100 95 100 115 100 12 14 18	ower 1 e power 2 the cl CODER and MELLOR 3.8 C1 15 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 90 95 100 105 110 12 14	learing of the combusti rpm or MARKLE – KORFF C2 15 2 30* 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115 100 90 95 100 105 110 12 14	3.3 rpm reduction m C3 15 2 30* 1,9 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 95 100 105 110 12 14
hergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Fied on feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) ** : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Smoke fan parameter in Power 5 (rpm) : Smoke fan parameter in Power 5 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 3 : Air exchanger speed in Power 3 : Air exchanger speed in Power 3 : Air exchanger speed in Power 4	CO CO 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 990 115 100 990 95 100 105 110 12 14 18 22	ower 1 e power 2 the cl CODER and MELLOR 3.8 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18 22	learing of the combusti rpm or MARKLE – KORFF C2 15 2 30* 2,2 2,2 2,2 2,2 2,2 2,36 4,3 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18 22
hergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Fire On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Max temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Fire On (rpm) : Smoke fan parameter in Power 2 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 4 : Air exchanger speed in Power 3 : Air exchanger speed in Power 4 : Air exchanger speed in Power 3 : Air exchanger speed in Power 4 : Air exchanger speed in Power 4 : Air exchanger speed in Power 5 : Air exchanger speed in Power 4 : Air exchanger speed in Power 5	Co Co 15 2 30* 2,8 1,9 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 90 955 100 105 110 12 14 18 22 26	ower 1 e power 2 the cl CODER and MELLOR 3.8 C1 15 2 30* 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18 22 26	learing of the combusti cpm or MARKLE – KORFF C2 15 2 30* 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18 22 26	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18 22 26
nergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Free On feed screw ON (sec) : Freed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Max temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Fire On (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 5 : Air exchanger speed in Power 5 : Air exchanger speed in Power 5 : Pump activation temperature	CO CO 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 990 115 100 990 95 100 105 110 12 14 18 22	ower 1 e power 2 the cl CODER and MELLOR 3.8 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18 22	learing of the combusti rpm or MARKLE – KORFF C2 15 2 30* 2,2 2,2 2,2 2,2 2,2 2,36 4,3 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18 22
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nergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 2 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 3 : Air exchanger speed in Power 4 : Air exchanger speed in Power 3 : Air exchanger speed in Power 4 : Air exchanger speed in Power 3 : Pump activation temperature Parameters in UT04 Password B9: :Feed screw on in domestic power (sec)	CO CO 15 2 30* 2,8 2,8 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 90 95 100 95 100 95 100 92 95 100 12 14 18 22 26 50	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15 2 30* 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 90 95 100 105 100 105 110 12 14 18 22 26 50 6,0	learing of the combusti 5 rpm or MARKLE – KORF C2 15 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115 100 90 95 100 105 110 105 110 12 14 18 22 26 50 5,3	3.3 rpm reduction m C3 15 2 30* 1,9 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 105 100 105 110 12 14 18 22 26 50 4,6
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nergency extractor voltage calibration (-25V +25V) 3. In grey are the parameters that we strongly advise NOT to modify OLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Load wood feed screw ON (sec) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Max temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Fire On (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 4 : Air exchanger speed in Power 5 : Pump activation temperature Parameters in UT04 Password B9: : Feed screw on in domestic power (Volt) : Smoke fan parameter in grate cleaning (Volt) : Smoke fan parameter in grate cleaning (Volt) : Smoke fan parameter in domestic power (Volt) : Smoke fan parameter in grate cleaning (Volt) : Start up differential when hot (C°)	CO CO 15 2 30* 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 915 100 95 100 95 100 95 100 95 100 925 100 92 93 94 105 100 92 93 90 95 100 110 12 14 18 22 26 50 6,7 120 130	ower 1 e power 2 the cl CODER and MELLOR 3.8 C1 15 2,4 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 30* 50 259 90 115 100 105 110 12 14 18 22 26 50 120	learing of the combusti rpm or MARKLE – KORFF C2 15 2 30* 2,2 2,2 2,2 2,2 2,2 2,2 2,2 2,36 4,3 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18 22 26 50 50 120 130	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 95 100 105 110 12 14 18 22 26 50 4,6 120 130
nergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Loat wood feed screw ON (sec) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 3 : Air exchanger speed in Power 4 : Feed screw on in domestic power (Volt) :smoke fan parameter in domestic power (Volt) :smoke fan parameter in grate cleaning (Volt) :temperature for the restart up in eco-stop :start up differential when hot (C°) Parameters in UT04 – Password C9:	CO CO 15 2 30* 2,8 1,9 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 90 955 100 90 955 100 222 26 50 259 90 115 100 90 955 100 110 12 14 18 22 26 50 6,7 120 130 80	ower 1 e power 2 the cl CC1 15 2 30* 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 30* 50 259 90 115 100 90 915 100 105 110 12 14 18 22 50 50 100 103 110 12 14 18 22 50 6,0 120 130 80 5	learing of the combusti Srpm or MARKLE – KORF C2 15 2 30* 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115 100 90 15 100 90 915 100 90 915 100 105 110 12 14 18 22 26 50 5 120 130 80 5	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 115 100 90 95 100 105 110 12 14 18 22 26 50 4,6 120 130
hergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Fire On feed screw ON (sec) : Feed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Fire On (rpm) : Smoke fan parameter in Power 2 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 4 : Air exchanger speed in Power 5 : Pump activation temperature Mar exchanger speed in Power 5 : Pump activation temperature Parameters in UT04 Password B9: : Feed screw on in domestic power (Volt) :smoke fan parameter in Grewer 5 : Pump activation temperature Parameters in UT04 Password C9: ************************************	CO CO 15 2 30* 2,8 1,9 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 90 955 100 90 955 100 222 26 50 259 90 115 100 90 955 100 110 12 14 18 22 26 50 6,7 120 130 80	ower 1 e power 2 the cl CC1 15 2 30* 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 30* 50 259 90 115 100 90 915 100 105 110 12 14 18 22 50 50 100 103 110 12 14 18 22 50 6,0 120 130 80 5	learing of the combusti 5 rpm or MARKLE – KORF C2 15 2,2 2,2 1,5 2,2 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115 100 90 95 100 105 110 105 110 105 110 105 110 105 110 105 110 122 14 18 22 26 50 50 125 100 100 105 110 100 105 110 100 10	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 115 100 90 95 100 105 110 12 14 18 22 26 50 4,6 120 130
hergency extractor voltage calibration (-25V +25V) a. In grey are the parameters that we strongly advise NOT to modify DLAR/NOVA - MICROCHIP IDRO_ZM - Micro-processor that manage Parameters in UT04 - Password A9: : Load wood (min) : Fire On (min) : Interval between the cleaning of the grate (min) : Load wood feed screw ON (sec) : Fire On feed screw ON (sec) : Freed screw on in Power 1 (sec) ** : Feed screw on in Power 2 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 3 (sec) : Feed screw on in Power 4 (sec) : Feed screw on in Power 5 (sec) : Smoke fan parameter shutting down : Duration of grate cleaning (sec) : Min temperature for the start-up phase (C°) : Max temperature for Eco phase modulation (C°) : Temp. to start up/shut down the exchanger (C°) : Smoke fan parameter in Load wood (rpm) : Smoke fan parameter in Power 1 (rpm) : Smoke fan parameter in Power 2 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 3 (rpm) : Smoke fan parameter in Power 4 (rpm) : Smoke fan parameter in Power 5 (rpm) : Air exchanger speed in Power 4 : Air exchanger speed in Power 5 : Pump activation temperature Parameters in UT04 Password B9: : Feed screw on in domestic power (Volt) :smoke fan parameter in Grew (Volt) :smoke fan parameter in grate cleaning (Volt) :temperature for the restart up in eco-stop :start up differential when hot (C°)	CO CO 15 2 30* 2,8 1,9 2,8 1,9 2,8 3,7 4,6 5,5 100 30* 50 259 90 115 100 90 955 100 90 955 100 222 26 50 259 90 115 100 90 955 100 110 12 14 18 22 26 50 6,7 120 130 80	ower 1 e power 2 the cl NCODER and MELLOR 3.8 C1 15 2 30* 2,4 1,7 2,5 3,3 4,1 4,9 100 30* 50 259 90 115 100 30* 50 259 90 115 100 30* 50 259 90 115 100 105 115 100 100	learing of the combusti Srpm or MARKLE – KORF C2 15 2 30* 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 1,5 2,2 2,9 3,6 4,3 100 30* 50 259 90 115 100 90 915 100 90 915 100 90 915 100 105 110 12 14 18 22 26 50 5 120 130 80 5	3.3 rpm reduction m C3 15 2 30* 1,9 1,3 1,9 2,5 3,1 3,7 100 30* 50 259 90 115 100 90 95 100 95 100 105 110 12 14 18 22 26 50 4,6 120 130



Parameters in UT04 - Password A9:	C0	C1	C2	C3
01: Load wood (min)	15	15	15	15
02: Fire On (min)	2	2	2	2
03: Interval between the cleaning of the grate (min)	30*	30*	30*	30*
04: Load wood feed screw ON (sec)	2,3	2,0	1,8	1,6
05: Fire On feed screw ON (sec)	2,3	2,0	1,8	1,6
06: Feed screw on in Power 1 (sec) **	1,6	1,4	1,2	1,0
07: Feed screw on in Power 2 (sec) **	2,3	2,0	1,8	1,6
08: Feed screw on in Power 3 (sec)	3,1	2,8	2,4	2,1
09: Feed screw on in Power 4 (sec)	3,9	3,4	2,9	2,5
10: Feed screw on in Power 5 (sec)	4,7	4,1	3,5	3,0
11:Smoke fan parameter shutting down	1600	1600	1600	1600
12: Duration of grate cleaning (sec)	30*	30*	30*	30*
13: Min temperature for the start-up phase (C°)	50	50	50	50
14: Max temperature for Eco phase modulation (C°)	259	259	259	259
15: Temp. to start up/shut down the exchanger (C°)	90	90	90	90
16: Smoke fan parameter in Load wood (rpm)	1600	1600	1600	1600
17: Smoke fan parameter in Fire On (rpm)	1600	1600	1600	1600
18: Smoke fan parameter in Power 1 (rpm)	1000	1000	1000	1000
19: Smoke fan parameter in Power 2 (rpm)	1250	1250	1250	1250
20: Smoke fan parameter in Power 3 (rpm)	1500	1500	1500	1500
21: Smoke fan parameter in Power 4 (rpm)	1750	1750	1750	1750
22: Smoke fan parameter in Power 5 (rpm)	2000	2000	2000	2000
23: Air exchanger speed in Power 1	12	12	12	12
24: Air exchanger speed in Power 2	14	14	14	14
25: Air exchanger speed in Power 3	18	18	18	18
26: Air exchanger speed in Power 4	22	22	22	22
27: Air exchanger speed in Power 5	26	26	26	26
28: Pump activation temperature	50	50	50	50
Parameters in UT04 - Password B9:				
54:Feed screw on in domestic power (sec)	5,7	5,0	4,3	3,7
55:smoke fan parameter in domestic power (rpm)	2300	2300	2300	2300
56:smoke fan parameter in grate cleaning (Volt)	2300	2300	2300	2300
57:temperature for the restart up in eco-stop	80	80	80	80
58:start up differential when hot (C°)	5	5	5	5
Parameter in UT04 – Password P0:				
Extractor rpm calibration (acceptable values: -2,-1,0,1,2)		Defa	ult = 0	

N.B. In grey are the parameters that we strongly advise NOT to modifiy

* In power 1 e power 2 the clearing of the combustion pot is excluded

Parameters in UT04 - Password A9:	C0	C1	C2	C3
01: Load wood (min)	15	15	15	15
02: Fire On (min)	2	2	2	2
03: Interval between the cleaning of the grate (min)	30*	30*	30*	30*
04: Load wood feed screw ON (sec)	2,6	2,3	2,0	1,7
05: Fire On feed screw ON (sec)	2,6	2,3	2,0	1,7
06: Feed screw on in Power 1 (sec) **	1,7	1,5	1,3	1,1
07: Feed screw on in Power 2 (sec) **	2,6	2,3	2,0	1,7
08: Feed screw on in Power 3 (sec)	3,4	3,0	2,6	2,3
09: Feed screw on in Power 4 (sec)	4,3	3,8	3,3	2,8
10: Feed screw on in Power 5 (sec)	5,1	4,5	3,9	3,4
11:Smoke fan parameter shutting down	1600	1600	1600	1600
12: Duration of grate cleaning (sec)	30*	30*	30*	30*
13: Min temperature for the start-up phase (C°)	50	50	50	50
14: Max temperature for Eco phase modulation (C°)	259	259	259	259
15: Temp. to start up/shut down the exchanger (C°)	90	90	90	90
16: Smoke fan parameter in Load wood (rpm)	1600	1600	1600	1600
17: Smoke fan parameter in Fire On (rpm)	1600	1600	1600	1600
18: Smoke fan parameter in Power 1 (rpm)	1000	1000	1000	1000
19: Smoke fan parameter in Power 2 (rpm)	1250	1250	1250	1250
20: Smoke fan parameter in Power 3 (rpm)	1500	1500	1500	1500
21: Smoke fan parameter in Power 4 (rpm)	1750	1750	1750	1750
22: Smoke fan parameter in Power 5 (rpm)	2000	2000	2000	2000
23: Air exchanger speed in Power 1	12	12	12	12
24: Air exchanger speed in Power 2	14	14	14	14
25: Air exchanger speed in Power 3	18	18	18	18
26: Air exchanger speed in Power 4	22	22	22	22
27: Air exchanger speed in Power 5	26	26	26	26
28: Pump activation temperature	50	50	50	50
Parameters in UT04 - Password B9:				
54:Feed screw on in domestic power (sec)	6,1	5,4	4,6	4,0
55:Smoke fan parameter in domestic power (rpm)	2300	2300	2300	2300
56: Smoke fan parameter in grate cleaning (Volt)	2300	2300	2300	2300
57:temperature for the restart up in eco-stop	80	80	80	80
58:start up differential when hot (C°)	5	5	5	5
Parameter in UT04 – Password P0:				
Extractor rpm calibration (acceptable values: -2,-1,0,1,2)		Defa	ult = 0	

Extractor rpm calibration (acceptable values: -2,-1,0,1,2) **N.B.** In grey are the parameters that we strongly advise NOT to modifiy

Default = 0 * In power 1 e power 2 the clearing of the combustion pot is **excluded**



OLAR/NOVA/ATHOS Power - Integrated micro-processo Parameters in UT04 - Password A9:	C0	C1	C2	C3
: Load wood (min)	15	15	15	15
l: Fire On (min)	2	2	2	2
: Interval between the cleaning of the grate (min)	30*	30*	30*	30*
E Load wood feed screw ON (sec)	2,3	2,0 2,0	1,8 1,8	1,6 1,6
: Feed screw on in Power 1 (sec) **	2,3	1,4	1,8	1,0
Feed screw on in Power 2 (sec) **	2,3	2,0	1,2	1,0
Feed screw on in Power 3 (sec)	3,1	2,8	2,4	2,1
Feed screw on in Power 4 (sec)	3,9	3,4	2,9	2,5
Feed screw on in Power 5 (sec)	4,7	4,1	3,5	3,0
Smoke fan parameter shutting down	1000	1000	1000	1000
Duration of grate cleaning (sec)	30*	30*	30*	30*
Min temperature for the start-up phase (C°)	50	50	50	50
Max temperature for Eco phase modulation (C°)	259	259	259	259
Temp. to start up/shut down the exchanger (C°)	90	90	90	90
Smoke fan parameter in Load wood (rpm)	1600	1600	1600	1600
Smoke fan parameter in Fire On (rpm)	1600	1600	1600	1600
Smoke fan parameter in Power 1 (rpm)	1000	1000	1000	1000
Smoke fan parameter in Power 2 (rpm)	1250	1250	1250	1250
Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm)	<u>1500</u> 1750	1500 1750	1500 1750	1500 1750
Smoke fan parameter in Power 5 (rpm)	2000	2000	2000	2000
Air exchanger speed in Power 1	12	12	12	12
Air exchanger speed in Power 2	14	14	14	14
Air exchanger speed in Power 3	18	18	18	18
Air exchanger speed in Power 4	22	22	22	22
Air exchanger speed in Power 5	26	26	26	26
Pump activation temperature	50	50	50	50
Parameters in UT04 - Password B9:				
Feed screw on in domestic power (sec)	5,7	5,0	4,3	3,7
smoke fan parameter in domestic power (rpm)	2300	2300	2300	2300
smoke fan parameter in grate cleaning (Volt)	2300	2300	2300	2300
temperature for the restart up in eco-stop	80	80	80	80
start up differential when hot (C°)	5	5	5	5
Parameter in UT04 – Password P0: tractor rpm calibration (acceptable values: -2,-1,0,1,2)			ult = 0	
		Dela	uit = 0	
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT	to modifiy * In power	Defa	ult = 1 ng of the combustion p	ot is excluded
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT THOS 13 kW – Integrated micro-processor - Smoke fan with		Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction	ult = 1 ng of the combustion p motor	
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT	an ENCODER and MARKLE –	Defa 1 e power 2 the cleari	ult = 1 ng of the combustion p	ot is excluded C3 15
Parameter in UT04 – Password P2: assure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min)	an ENCODER and MARKLE – C0	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1	ult = 1 ng of the combustion p motor C2	C3
Parameter in UT04 – Password P2: assure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min)	an ENCODER and MARKLE – C0 15	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15	ult = 1 ng of the combustion p motor C2 15	C3 15
Parameter in UT04 – Password P2: assure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec)	an ENCODER and MARKLE – C0 15 2 30* 4,9	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7	C3 15 2 30* 3,1
Parameter in UT04 – Password P2: assure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT THOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 4,9	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 3,7	C3 15 2 30* 3,1 3,1
Parameter in UT04 – Password P2: assure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT THOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Feed screw on in Power 1 (sec) **	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 4,9 2,3	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 4,3 2,0	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 3,7 1,7	C3 15 2 30* 3,1 3,1 1,5
Parameter in UT04 – Password P2: assure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) **	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 4,3 2,0 3,1	ult = 1 ng of the combustion p motor C2 30* 3,7 3,7 1,7 2,7	C3 15 2 30* 3,1 3,1 1,5 2,3
Parameter in UT04 – Password P2: issure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fieed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 4,9	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 3,7 1,7 2,7 3,7	C3 15 2 30* 3,1 3,1 1,5 2,3 3,1
Parameter in UT04 – Password P2: ssure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fied screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 4,9 6,4	$\begin{array}{c} \text{Defa} \\ \hline \text{Defa} \\ \text{KORFF 1.5 rpm reduction} \\ \hline \textbf{C1} \\ \hline 15 \\ 2 \\ 30^{*} \\ 4,3 \\ 4,3 \\ 2,0 \\ 3,1 \\ 4,3 \\ 5,6 \\ \end{array}$	ult = 1 ng of the combustion p C2 15 2 30* 3,7 1,7 2,7 3,7 4,8	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1
Parameter in UT04 – Password P2: ssure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fieed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec)	an ENCODER and MARKLE – CO 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8	ult = 1 ng of the combustion p motor C2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1 4,9
Parameter in UT04 – Password P2: issure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fieed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down	an ENCODER and MARKLE – CO 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500	ult = 1 ng of the combustion p motor C2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1 4,1 4,9 1500
Parameter in UT04 – Password P2: issure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fied screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) ** Feed screw on in Power 3 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30*	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30*	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 1,7 2,7 3,7 4,8 5,9 1500 30*	C3 15 2 30* 3,1 1,5 2,3 3,1 1,5 2,3 3,1 4,1 4,1 4,9 1500 30*
Parameter in UT04 – Password P2: assure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fied screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50	C3 15 2 30* 3,1 1,5 2,3 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50
Parameter in UT04 – Password P2: Issure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°) Max temperature for Eco phase modulation (C°)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30*	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 1,7 2,7 3,7 4,8 5,9 1500 30*	C3 15 2 30* 3,1 1,5 2,3 3,1 1,5 2,3 3,1 4,1 4,9 1500 30*
Parameter in UT04 – Password P2: Issure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fied screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°) Max temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210	C3 15 2 30* 3,1 1,5 2,3 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210
Parameter in UT04 – Password P2: assure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fied screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Load wood (rpm)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90	ult = 1 ng of the combustion p motor C2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90	C3 15 2 30* 3,1 1,5 2,3 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90
Parameter in UT04 – Password P2: assure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fieed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°) Max temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Load wood (rpm) Smoke fan parameter in Fire On (rpm)	an ENCODER and MARKLE – CO 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300	ult = 1 ng of the combustion p motor C2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fied screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) ** Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°) Max temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Load wood (rpm) Smoke fan parameter in Fire On (rpm) Smoke fan parameter in Power 1 (rpm)	an ENCODER and MARKLE – C0 15 2 30* 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 1500 1500	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 1500 1500 1500	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 2300 1500 1500 1500	C3 15 2 30* 3,1 1,5 2,3 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 1500 1750
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 1 (sec) Feed screw on in Power 2 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°) Max temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Load wood (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 2 (rpm) Smoke fan parameter in Power 2 (rpm)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 2300 1500 1750 2000	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 2300 1500 1750 2000	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 2300 1500 1750 2000	C3 15 2 30* 3,1 1,5 2,3 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 1500 1750 2000
Parameter in UT04 – Password P2: ssure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°) Max temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Load wood (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 2 (rpm) Smoke fan parameter in Power 3 (rpm)	an ENCODER and MARKLE – CO 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250	ult = 1 ng of the combustion p motor C2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 1500 1750 2750
Parameter in UT04 – Password P2: assure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°) Max temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Fire On (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 2 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 4 (rpm)	an ENCODER and MARKLE – CO 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2500	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 1500 2300 1500 2300 1500 2300 2300 2300 2300 2500	ult = 1 ng of the combustion p motor C2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 1500 2300 1500 2300 1500 2300 2300 1500 2300 2300 2300 2300 2500	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2500
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Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Fied screw on in Power 1 (sec) ** Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Load wood (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 5 (rpm) Air exchanger speed in Power 1 (NOT AVAILABLE) Air exchanger speed in Power 2 (NOT AVAILABLE)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 2300 1500 1750 2000 2250 2500 12 14	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 1500 1500 1750 2000 2500 12 14	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 2300 1500 1500 1500 1500 2300 1500 1500 1750 2000 2500 12 14	C3 15 2 30* 3,1 1,5 2,3 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 2300 1500 1750 2000 2250 2500 12 14
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fie On feed screw ON (sec) Fie on feed screw ON (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 4 (sec) Smoke fan parameter shuting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°) Max temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Load wood (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 5 (rpm) Air exchanger speed in Power 4 (rpm) Smoke fan parameter in Power 3 (rpm) Air exchanger speed in Power 3 (NOT AVAILABLE) Air exchanger speed in Power 3 (NOT AVAILABLE)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 2300 1500 1750 2000 2250 2500 12 12 14 18	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2250 2250 12 14 18	ult = 1 ng of the combustion p motor C2 30^* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500 30^* 50 210 90 2300 2300 1500 1750 2000 1750 2000 12 14 18	C3 15 2 30* 3,1 1,5 2,3 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 2300 1500 1750 2000 22500 2500 12 14 18
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw on Nexer (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Load wood (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 2 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 5 (rpm) Air exchanger speed in Power 1 (NOT AVAILABLE) Air exchanger speed in Power 3 (NOT AVAILABLE) Air exchanger speed in Power 4 (NOT AVAILABLE)	an ENCODER and MARKLE – C0 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 2300 1500 1750 2000 2250 2500 12 12 14 18 22	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2250 2250 12 14 18 22	ult = 1 ng of the combustion p motor C2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2500 12 14 18 22	C3 15 2 30* 3,1 1,5 2,3 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 2300 1500 1750 2000 2250 2500 12 14 14 18 22
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fire On feed screw ON (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°) Max temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Fire On (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 2 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 5 (rpm) Air exchanger speed in Power 4 (NOT AVAILABLE) Air	an ENCODER and MARKLE – CO 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2500 12 14 14 18 22 26	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 1500 1750 2000 2250 2250 12 14 18 22 26	ult = 1 ng of the combustion p motor C2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 1500 1750 2000 2250 2250 12 14 18 22 26	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 1500 1750 2000 2300 1500 1750 2000 2500 12 14 18 22 26
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Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) ** Feed screw on in Power 3 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Max temperature for the start-up phase (C°) Max temperature for Eco phase modulation (C°) Temp. to start up/shut down the exchanger (C°) Smoke fan parameter in Fie On (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 3 (rpm) Air exchanger speed in Power 1 (NOT AVAILABLE) Air exchanger speed in Power 3 (NOT AVAILABLE) Air exchanger speed in Power 5 (NOT AVAILABLE) Pump activation temperature	an ENCODER and MARKLE – CO 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2500 12 14 14 18 22 26	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 2300 2300 1500 2300 1500 2300 2300 1500 1750 2000 2250 2500 12 14 18 22 26 50	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 2300 1500 2500 2500 2500 2500 1500 2000 2500	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 1500 1750 2000 2300 1500 1750 2000 2500 12 14 18 22 26
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) ** Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shuting down Duration of grate cleaning (sec) Min temperature for Eco phase modulation (C°) Term. to start up/shut down the exchanger (C°) Smoke fan parameter in Load wood (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 5 (rpm) Smoke fan parameter in Power 5 (rpm) <	an ENCODER and MARKLE – CO 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2500 12 14 14 18 22 26	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 2300 2300 1500 2300 1500 2300 2300 1500 1750 2000 2250 2500 12 14 18 22 26 50	ult = 1 ng of the combustion p motor C2 30* 3,7 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 1500 1750 2000 2250 2250 12 14 18 22 26	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 1500 1750 2000 2300 1500 1750 2000 2500 12 14 18 22 26
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Fieed of the grate (min) Load wood feed screw ON (sec) Fieed screw on in Power 1 (sec) ** Feed screw on in Power 1 (sec) ** Feed screw on in Power 3 (sec) Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shutting down Duration of grate cleaning (sec) Min temperature for the start-up phase (C°) Max temperature for the start-up phase (C°) Smoke fan parameter in Load wood (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 5 (rpm) Air exchanger speed in Power 3 (NOT AVAILABLE) Air exchanger speed in Power 3 (NOT AVAILABLE) Air exchanger speed in Power 4 (NOT AVAILABLE) Air exchanger speed in Power 5 (NOT AVAILABLE) Pump activation temperature Parameter in UT04 – Password PO: ractor rpm calibration (acceptable values: -2,-1,0,1,2) Parameter in UT04 – Password P1:	an ENCODER and MARKLE – CO 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2500 12 14 14 18 22 26	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2500 12 14 14 18 22 26 50 Defa	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 2300 1500 1750 2000 2500 12 12 14 18 22 26 50 ult = 0	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 1500 1750 2000 2300 1500 1750 2000 2500 12 14 18 22 26
Parameter in UT04 – Password P2: essure transducer activation (1 active - 0 inactive) N.B. In grey are the parameters that we strongly advise NOT HOS 13 kW – Integrated micro-processor - Smoke fan with Parameters in UT04 - Password A9: Load wood (min) Fire On (min) Interval between the cleaning of the grate (min) Load wood feed screw ON (sec) Feed screw on in Power 1 (sec) ** Feed screw on in Power 2 (sec) ** Feed screw on in Power 3 (sec) Feed screw on in Power 4 (sec) Feed screw on in Power 5 (sec) Smoke fan parameter shuting down Duration of grate cleaning (sec) Min temperature for Eco phase modulation (C°) Term. to start up/shut down the exchanger (C°) Smoke fan parameter in Load wood (rpm) Smoke fan parameter in Power 1 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 3 (rpm) Smoke fan parameter in Power 4 (rpm) Smoke fan parameter in Power 5 (rpm) Smoke fan parameter in Power 5 (rpm) <	an ENCODER and MARKLE – CO 15 2 30* 4,9 4,9 2,3 3,5 4,9 6,4 7,7 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2500 12 14 14 18 22 26	Defa 1 e power 2 the cleari KORFF 1.5 rpm reduction C1 15 2 30* 4,3 4,3 2,0 3,1 4,3 5,6 6,8 1500 30* 50 210 90 2300 2300 1500 1750 2000 2250 2500 12 14 14 18 22 26 50 Defa	ult = 1 ng of the combustion p motor C2 15 2 30* 3,7 1,7 2,7 3,7 4,8 5,9 1500 30* 50 210 90 2300 2300 1500 2500 2500 2500 2500 1500 2000 2500	C3 15 2 30* 3,1 1,5 2,3 3,1 4,1 4,9 1500 30* 50 210 90 2300 2300 2300 1500 1750 2000 2500 2500 12 14 18 22 26



3. "EASY" ELECTRONICS

3.1. Operating concept

Electronics defined "EASY" by MCZ consists of a simplified solution for regulating fuel which foresees a userfriendly control panel (similar to the "All Black" panel).

The operating concept is based on electronics basically identical to stoves using old "Pellet Box" technology, but in this case there is no possibility to choose the various "recipes" to regulate combustion. There is, however, the possibility of adjusting the flow of pellets to the grate by percentage and the speed of the smoke exhaust fan in order to "calibrate" combustion.

Exploiting the concepts of vision and adjustment of the flame already seen in section **2.2.5.**, it is possible, thanks to these user-friendly electronics, to increase or decrease the fundamental combustion parameters in terms of quantity of fuel (pellets) and combustion air (oxygen carried to the combustion chamber from the smoke fan).

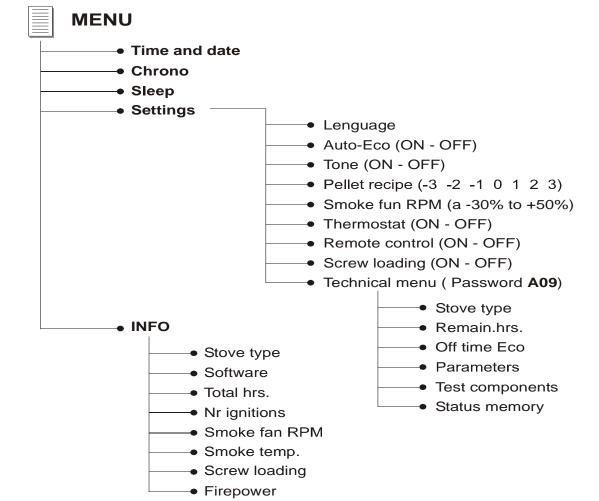
The standard adjustment of the **pellet-oxygen mix** is already factory adjusted for installations or serious conditions and therefore in the majority of cases it is not necessary to make any adjustments, but in the event this should be necessary, we explain how to modify the mixtures by percentage but also the menu structure.

3.2. Menu structure

The "Easy" product control panel like **FACE** or **KAIKA** presents 5 buttons dedicated to the following functions:



- 1. Choice of operating mode MANUAL/AUTO
- 2. Access to the main menu and submenu
- 3. Choice of flame power in manual mode and temperature in automatic mode. Scrolling the menu.
 - 4. Choice of air fan speed and menu scrolling.
 - 5. On/Off and exiting the menu.





3.3. Changing the pellet load

In the event that pellets tend to get blocked in the grate due to excessive load of fuel or in the case in which the flame is always high even at low powers it is possible to decrease the pellet feed rate into the grate:

EASY CONTROL PANEL	FUNCTION
	1. Press the button on the TOP RIGHT to access the menu.
	2. Scroll with the two bottom buttons through the various menus, until reaching the menu SETTINGS.
	3. Press the button in correspondence to the word SET.
	 Scroll through the various menus using the two bottom buttons until reaching the menu PELLET COMPOSITION.
	5. Confirm by pressing the button in correspondence to SET.
Mode: MANU Menu	 Change the values with the lower keys corresponding to symbols + e -
F i r e : 1 F a n : 2	7. Confirm by pressing the button in correspondence to key OK .
e s c s e t s e t < S e t t n g > >	
	THE VALUES AVAILABLE ARE
e s c 0 S e t - P e I e t R e c i p e +	- 3 = Decrease of 30% of pellets in all powers.
- P e I I e t R e c i p e +	- 2 = Decrease of 20% of pellets in all powers.
e s c - 2 0 K	- 1 = Decrease of 10% of pellets in all powers.
- P e I I e t R e c i p e +	0 = No variation
	1 = Increase of 5% of pellets in all powers.
	2 = Increase of 10% of pellets in all powers.
	3 = Increase of 15% of pellets in all powers.

3.4. Change in smoke exhaust fan speed

In the case that the installation proves difficult and smoke evacuation is poor due to absent of draught or even pressure in the duct (wall exits), it is possible to increase the speed of smoke expulsion and ashes. Such modification is also the best way to solve all potential problems of pellet blockages in the grate and sediments on the bottom of the grate which are created by bad quality fuel or which release a lot of ash.

EASY CONTROL PANEL	FUNCTION
	1. Press the button on the TOP RIGHT to access the menu.
	2. Scroll with the two bottom buttons through the various menus, until reaching the menu SETTINGS.
	3. Press the button in correspondence to the word SET.
	4. Scroll the various menus using the two bottom buttons until reaching the menu VAR. SMOKE RPM.
M o d e : M A N U M e n u F i r e : 1 F a n : 2	5. Confirm by pressing the button in correspondence to SET.
esc Settina Set	 Change the value with the lower keys corresponding to symbols + e -
<pre>< \$ e t t i n g ></pre>	7. Confirm by pressing the button in correspondence to
e s c 0 % S e t	key OK .
V a r . S m o k e R P M	
	THE VALUES AVAILABLE ARE
e s c 0 % 0 K + V a r . S m o k e R P M -	From -30 % to +50%
	with variations of 5 percentage points per time



3.5. Parameters

	KAIKA / FACE - Integrated microprocessor		
Visualisation on the	TECHNICAL MENU - Password A9:	Unit	Values
display Load wood	Load wood maximum time	(min)	15
		(min)	. 2
Fire on	Flame stabilisation	(min)	5
cleaning schedule	Interval between cleaning the grate (not active in P1 and P2)	(min)	30
hopper LW	Hopper load wood time	(sec)	3
hopper FO	Time hopper in fire on	(sec)	3
extractor LW	Smoke extractor speed in load wood	(rpm)	1700
extractor FO	Smoke extractor speed in fire on	(rpm)	1400
T Exchanger ST	Temperature at which on shutdown the exchanger passes to V1 from the working setting	(°C)	100
T-off exchang	Temperature for switching the exchanger on and off	(°C)	50
T-max smoke	Pre-alarm smoke temperature, at which the stove starts to modulate power	(°C)	195
T-stove on	Smoke temperature to consider the stove on	(°C)	50
extractor P1	Smoke extractor speed in P1	(rpm)	1000
extractor P5	Smoke extractor speed in P5	(rpm)	1700
hopper P1	Hopper time in P1	(sec)	1,5
hopper P5	Hopper time in P5	(sec)	3,7
exchanger V1	Exchanger fan power supply voltage V1	(Volts)	160
exchanger V5	Exchanger fan power supply voltage V5	(Volts)	230
T-stove off	Smoke temperature to consider the stove off	(°C)	45
Cleaning duration	Grate cleaning duration	(sec)	30
Hopper brake	Parameter which inserts (S) or uninserts (N) the hopper brake	on/off	On
Load wood	Load wood maximum time	(min)	15

	KAIKA OYSTER		
Visualisation on the display	TECHNICAL MENU - Password A9:	Unit	Values
Load wood	Load wood maximum time	(min)	15
Fire on	Flame stabilisation	(min)	5
cleaning schedule	Interval between cleaning the grate (not active in P1 and P2)	(min)	30
hopper LW	Hopper load wood time	(sec)	2
hopper FO	Time hopper in fire on	(sec)	2
extractor LW	Smoke extractor speed in load wood	(rpm)	1600
extractor FO	Smoke extractor speed in fire on	(rpm)	1600
T Exchanger ST	Temperature at which on shutdown the exchanger passes to V1 from the working setting	(°C)	100
T-off exchang	Temperature for switching the exchanger on and off	(°C)	50
T-max smoke	Pre-alarm smoke temperature, at which the stove starts to modulate power	(°C)	240
T-stove on	Smoke temperature to consider the stove on	(°C)	50
extractor P1	Smoke extractor speed in P1	(rpm)	1000
extractor P5	Smoke extractor speed in P5	(rpm)	1400
hopper P1	Hopper time in P1	(sec)	1,3
hopper P5	Hopper time in P5	(sec)	2,5
exchanger V1	Exchanger fan power supply voltage V1	(Volts)	200
exchanger V5	Exchanger fan power supply voltage V5	(Volts)	230
T-stove off	Smoke temperature to consider the stove off	(°C)	45
Cleaning duration	Grate cleaning duration	(sec)	30
Hopper brake	Parameter which inserts (S) or uninserts (N) the hopper brake	on/off	On
Load wood	Load wood maximum time	(min)	15

3.6. The alarms in "EASY" appliances

The classification of the alarms and the relative fault remedies is identical to that of Active System stoves equipped with the same control panel as EGO or STAR. For fault remedies therefore consult the flow diagrams relative to the aforesaid appliances.

			ALARMS ON EASY CONTROL PANEL
		A01	Start-up failed
		A02	Abnormal fire extinguishing
0	O U	A03	Tank overheating T>110 °C
		A05	Flue clogged up - OYSTER model -
0		A07	Fire door open - OYSTER model -
		A08	Fume extraction fan damaged
		A09	Fume temperature too high or sensor damaged
		A19	Pellet tank door open - OYSTER model -

Service Manual - cod. 89070072 - UK



In order to verify the operation of the various components of the stove such as for example the reduction motor or the exhaust fan, it is possible to access the **TECHNICAL MENU** and proceed with switching on each single component to verify operation and efficiency.

EASY CONTROL PANEL	FUNCTION
	1. Press the button on the TOP RIGHT to access the menu.
	2. Scroll with the two bottom buttons through the various menus, until reaching the menu SETTINGS.
	3. Press the button in correspondence to SET.
	 Scroll with the two bottom buttons through the various menus, until reaching the menu TECHNICAL MENU.
M o d e n U M e n u F i r e : 1 F a n : 2	5. Press the button in correspondence to SET , and insert
e s c s c s c t s c t s c t t t s t t t t t t s t <tht< th=""> t t t</tht<>	the password A9 with the bottom keys, confirming with OK first the letter and then the number.
e s c S e t < T e c h n i c a I M e n u >	6. Confirm by pressing the key SET.
e s c C 9 3 S e t P a s s w o r d >	 Scroll through the various menus until TEST COMPONENTS and confirm by pressing SET
e s c s e t <	 Choose the component to be fed using the bottom keys and confirm by pressing key SET.



4. THE ACTIVE SYSTEM ELECTRONICS

4.1. Operating concept

The **ACTIVE SYSTEM** electronics, using a flow sensor assembled on the air inlet pipe Ø50 mm, calculates the amount of incoming oxidising air and balances the combustion by continuously varying the speed of the smoke extraction fan.



The operating base consists in always loading the same quantity of fuel in the grate (pellet) and only varying the quantity of air entering by varying the speed of the smoke expulsion fan. By doing so, the quantity and/or the quality of the fuel is almost unimportant, since by continuously adjusting the amount of incoming oxidising air, it is possible to dispose of the fuel and balance the combustion. The added value of this system consists in the fact that **it is no longer necessary to calibrate or adjust the combustion**.

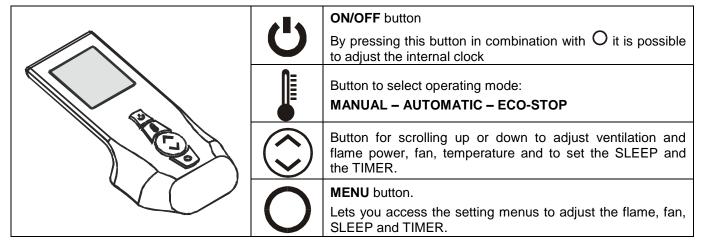
4.2. The ACTIVE SYSTEM control panels

EMERGENCY PANEL	FUNCTION
ON REMOTE OFF MAX MED MIN TEST	 Using the emergency panel it is possible to control the stove, when the ACTIVE remote control is out of order. LEDS Flashing green = Stove starting up Steady green = Stove on Flashing red = Stove shutting down or in alarm condition. Steady red = Stove off ON-REMOTE-OFF SELECTOR ON = By turning the selector to ON the stove turns on WITHOUT the aid of the remote control. REMOTE = The stove is integrally controlled by the REMOTE CONTROL OFF = By turning the selector to OFF the stove turns on WITHOUT the aid of the remote control. By turning the selector to OFF also the alarms are cancelled. MAX-MED-MIN SELECTOR The minimum power corresponds to speed 1 (P-1) The medium power corresponds to speed 3 (P-3) The air fan will have the power equal to the flame.
"ALL BLACK" CONTROL PANEL	FUNCTION
о 0 0 0	LCD control panel - ACTIVE SYSTEM that includes the complete management of the device. The ACTIVE SYSTEM remote control is not included on the stoves that have this type of control panel but only a small remote control, not standard with the product but can be bought separately as an option.



REMOTE CONTROL FOR THE "ALL BLACK" PANEL	FUNCTION
	Remote control for stoves: EGO – STAR Air Function: • ON/OFF • FLAME SPEED ADJUSTMENT • FAN SPEED ADJUSTMENT

4.3. The ACTIVE SYSTEM remote control



4.3.1. Choosing the number of air fans to be managed, with the remote control (Air or Comfort Air)

The **SUITE – CLUB – MUSA version COMFORT AIR** model stoves have the possibility of **separately** managing with the ACTIVE remote control, the two fans for the front outlet of hot air and for the rear outlet intended for the ducts. Since there is **one remote control for all the models**, it is possible to set it so that two fans can be managed in the **COMFORT AIR** models or just one fan in the case of all the other models of the stove with the **AIR** version. To do so, just:

- press the buttons of and O at the same time for 10 seconds
- press the button O to choose on the display the value **1** to manage a fan (AIR version stoves) or the value **2** to manage two fans (COMFORT-AIR version stoves)
- press the button **U** to confirm or wait **10 seconds**

4.3.2. The TIMER programmes of the ACTIVE SYSTEM remote control.

Within the remote control the weekly and daily TIMER programmes are saved. The TIMER programmes have had changes over time and thus, the various remote controls, **report a number printed inside the battery compartment**, that identifies the types of programmes saved within.

The abbreviations of the versions are respectively:

(00) (01) (02) (03) (04) (05) (06)

Here are the versions of the various TIMER programmes, in order to avoid replacing a remote control, without informing the user of the changes made by MCZ.

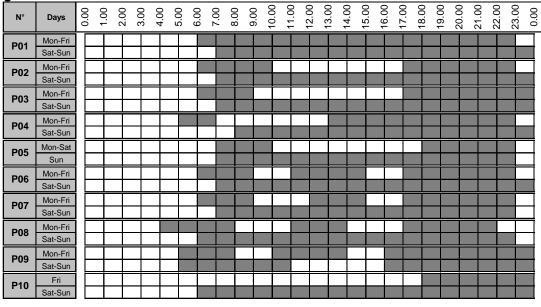






Versions (00) (01)

Weekly programmes



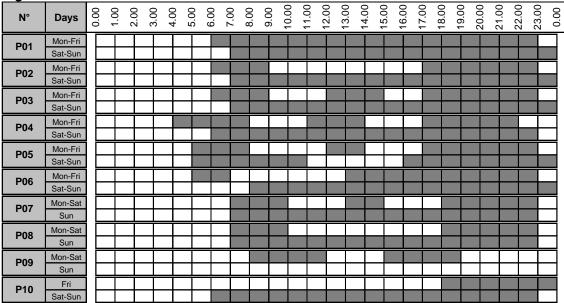
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Version (02) (03)

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Version (04) (05) Transmission frequency 434.5 MHz - ΔT 1 °C for ECO STOP intervention Weekly programmes 1.00 12.00 13.00 14.00 16.00 17.00 18.00 19.00 20.00 21.00 22.00 23.00 2.00 3.00 4.00 6.00 7.00 8.00 9.00 0.00 5.00 00.1 5.00 0.00 REMOTE CONTROL INCOMPATIBLE WITH THE PRODUCTS MANUFACTURED BEFORE 0.00 N° Days Mon-Fri P01 Sat-Sun Mon-Fri P02 Sat-Sun Mon-Fri P03 Sat-Sun Mon-Fri P04 Sat-Sun Mon-Fri P05 Sat-Sun Mon-Fri P06 Sat-Sun DIFFERENT TRANSMISSION FREQUENCY Mon-Sat P07 Sun Mon-Sa P08 Sun Mon-Sa P09 Sun Fri P10 Sat-Sun **Daily programmes** 11.00 12.00 15.00 16.00 18.00 19.00 21.00 22.00 23.00 0.00 2.00 3.00 4.00 5.00 8.00 10.00 13.00 14.00 17.00 20.00 0.00 1.00 6.00 7.00 9.00 N° 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 **APRIL 2009.** 27 28 29 30 31 32 33 34 36 37 38 39 40 41 42 43 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59

Service Manual - cod. 89070072 - UK

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Version (06) Transmission frequency 434.5 MHz - ΔT 2 °C for ECO STOP intervention 10 weekly programmes 62 daily programmes

Weekly programmes

N°	Days	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14 00	15.00	00.01	00.01	17.00	18.00	19.00	20.00	21.00	22.00	23.00	0.00
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Daily programmes

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Service Manual - cod. 89070072 - UK



4.4. Structure of the menus of the "ALL BLACK" LCD panel for the ACTIVE SYSTEM.

"ALL BLACK" LCD PANEL	FUNCTION
o ف	1. By pressing one of the buttons it is possible to access the adjustment screen (<i>figure 1</i>).
0 0	2. By pressing the button in the corner corresponding to the word it is possible to change the setting concerning that function (<i>figure 2</i>).
Illustration of the display in stand-by 2 2 . 0 ° C 1 0 : 2 3 2 2 . 0 ° C 1 0 : 2 3 2 2 . 0 ° C 1 0 : 2 3	 Adjust the mode from MANUAL to AUTOMATIC Press the TOP LEFT button. Adjust the temperature or the speed of the flame is the operating mode is MANUAL or MANUAL
Figure 1	AUTOMATIC Press the BOTTOM LEFT button.
Illustration of the display in the adjustment phase M o d e : A U T O M e n u	 Adjust the speed of the air fan Press the BOTTOM RIGHT button.
T e m p : 2 2 ° C F a n : 3 M o d e : M A N U M e n u F i r e : 1 F i r 2	 Enter the MENU to access the other functions such as the setting of the TIMER or SLEEP Press the TOP RIGHT button.
Figure 2 $Figure 2$ $Figure 2$ $Figure 2$ $Figure 2$ $Figure 3$ $Figure 4$	 By pressing the button corresponding to MENU in the TOP RIGHT hand corner, it is possible to enter the screens that allow the adjustment of the other functions (figure 3). To choose the desired function, press the BOTTOM buttons in correspondence to the arrows (< >). The menus are as follows: DATE and TIME To set the time. TIMER To set the timer programmes already saved in the motherboard. The programmes are identical to those saved in the ACTIVE SYSTEM remote control version (04)(05). SLEEP Set it to turn off by setting a countdown in minutes or hours. SET H₂O TEMPERATURE Set the temperature of the water desired in the boiler for the HYDRO models. SETTINGS(figure 4)
<	Set some preferences or functions of the stove such as:
<	 The LANGUAGE of the display Set the ECO-STOP
e s c 0 f f S e t	 Modify the TONES
T h e r m o s t a t > e s c O f f > >	 Modify the pellet recipe
e s c o i i s e i < C o c h i e a S t o p >	 Activation outer thermostat Activate pollet food agrow
e s c O f f S e t < C I e a n i n g > >	 Activate pellet feed screw Grate and exchanger selfcleaning (only
e s c A u t o S e t < ° C / ° F > >	for Hydro stoves)
e s c S e t	 °C / °F Enter the TECHNICAL MENU to modify
_< TechnicaIMen> Figura 4	the parameters.



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• INFO (see paragraph 4.6.)

From some information concerning the state of the stove such as the temperature of the smoke sensor, the number of smoke fan revolutions, the litres/minute detected by the flow sensor, the working hours and the voltage provided to the air fans (*figure* 5).

N.B. Pressing the on/off button, the display returns to the initial display.

4.5. Any adjustment in the ACTIVE SYSTEM from the emergency panel.

4.5.1. Modify the quantity of pellets

Although the **ACTIVE SYSTEM** system allows the adjustment of any combustion, there are limited cases where it is necessary to intervene.

E.g:

- Installations completely contrary to the instructions of the manufacturer.
- Pellet of a size that does not comply with the standards imposed by the certifications (length < 0.5 mm o > 3 cm)
- Installations with oversized chimney flues.

To prevent these problems, **the emergency side panel** allows an additional adjustment of the quantity of the pellet fed in the combustion chamber. Instead it is not possible to modify the operation of the smoke extraction fan, since it is controlled by the air flow sensor that requires more or less combustion air, based on the input values detected.

PANEL	INSTRUCTIONS
	1. Press the button TEST for 5 seconds
ON REMOTE OFF MAX MED MIN TEST	 2. On the display the figure 0 appears 3. Press the embedded button whether to increase or decrease the quantity of pellets desired. THE VALUES AVAILABLE ARE 3 = 30% decrease of pellets in all the powers 2 = 20% decrease of pellets in all the powers 1 = 10% decrease of pellets in all the powers 0 = No variation 1 = 5% increase of pellets in all the powers 2 = 10% increase of pellets in all the powers 3 = 15% increase of pellets in all the powers

4.5.2. De-activating the combustion air flow sensor

There is the possibility of de-activating the flow sensor, in the case in which damage occurs and it is necessary to use the stove for domestic heating.

At the time when the flow sensor is inactive, the combustion is managed as in the stoves with the BOX PELLET electronics; however there is not possibility of modifying the recipe, only modifying the quantity of pellets fed into the combustion chamber as previously explained.



The smoke extraction fan works with the number of fixed revolutions for each power, whose values may be assimilated to the values of a **HORIZONTAL** recipe of the Pellet Box® electronics.

EMERGENCY PANEL	INSTRUCTIONS
	1. Press the button TEST for 10 seconds
	2. On the display On appears
ON REMOTE OFF	 Press the embedded button to modify the setting and activate or deactivate the sensor.
MAX MED MIN	THE VALUES AVAILABLE ARE
TEST •	ON = Flow sensor ACTIVE
	OFF = Flow sensor INACTIVE

4.5.3. Reset of Hours of Operation counter for scheduled maintenance.

The ACTIVE SYSTEM models made from 2009 onwards (**EGO-STAR-SUITE-CLUB-MUSA**) are equipped with an hours of operation counter, that advises the user when it is time to carry out scheduled maintenance. Scheduled maintenance must be carried out after **2000 hours of operation** (approx **8 months** of use for 8 hours a day). When the 2000 hours of operation is reached, the emergency control panel or LCD display, will begin to beep and either **SEr** o **SERVICE** will appear in the display informing the user it is time to carry out maintenance (see cap. **6**.). Once maintenance has been carried out it is necessary to rest the counter to zero and disactivate other maintenance warnings.

EMERGENCY CONTROL PANEL	INSTRUCTION
ON REMOTE OFF MAX MED MIN TEST	 Press and hold the TEST button for 15 seconds Thedisplay will show SEr Press the button to reset the counter and to disactivate any other maintenance warnings. VALUES AVAILABLE ARE SEr = Necessary to carry out maintenance 000 = Reset the counter
LCD PANEL	INSTRUCTION
$\begin{tabular}{ c c c c c } \hline & & & & & & & & & & & & & & & & & & $	 Press the TOP RIGHT button to get to the menu. Scroll with the two bottom buttons until you get to the CONFIGURATION menu. Press the corresponding button to SET. Scroll with the two bottom buttons until you get to the TECHNICAL MENU button Press the corresponding button to SET, and enter the password C 93 with the bottom buttons, confirm with OK the letter first and then the number. Confirm pressing the corresponding button to SET. Scroll between the different menus until you get to the HOURS OF SERVICE menu Confirm pressing the corresponding button to SET. Reset the hours by pressing the button corresponding to OK.



4.5.4. De-activating the pellet hopper level sensor

It is possible to de-activate the pellet hopper level sensor in the products in which it is installed (e.g. PowerBox and PowerSystem). This possibility may be necessary, should the sensor lose its sensitivity or calibration. It stops the regular function of the product. By de-activating the sensor it is possible to use the product without this control. Therefore the pellet level control must be made in sight as in the case of the stoves.

NOTE: The sensor has no longer been fitted on the PowerSystem and PowerBox products since January 2009

The method to disactivate the sensor, has been re-utilised for the resetting of the hours of operation counter for scheduled maintenance.

EMERGENCY PANEL	INSTRUCTIONS
MCZ	4. Press the button TEST for 15 seconds
	 On the display PEL LET appears in two subsequent moments.
ON REMOTE OFF MAX	 Press the embedded button setting and activate or deactivate the sensor.
	THE VALUES AVAILABLE ARE
	PEL LET = Flow sensor ACTIVE
	= Level sensor INACTIVE

4.5.5. ACTIVE remote control tuning

When replacing the remote control, the batteries or after the summer, it may be necessary to tune the frequency of the remote control with the device again.

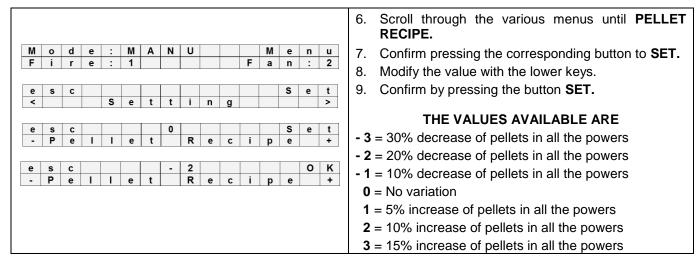
EMERGENCY PANEL	INSTRUCTIONS
ON REMOTE OFF MAX MED MIN TEST	 Turn the first selector to REMOTE Press the embedded button On the display three lines appear Press the on and off button of the remote control. Three acoustic signals coming from the emergency panel indicating the recognition of the frequency.

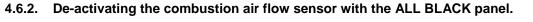
4.6. Any adjustment in the ACTIVE SYSTEM from the "ALL BLACK" LCD panel.

4.6.1. Modify the quantity of pellets with the ALL BLACK panel.

PANEL	INSTRUCTIONS
	1. Press the button in TOP RIGHT to access the menu.
^ن ٥	2. Scroll with the two bottom buttons through the various menus, until reaching the menu SETTINGS.
0 0	3. Press the button in correspondence to SET.
	4. Scroll with the two bottom buttons through the various menus, until reaching the menu SETTING .
	5. Confirm pressing the corresponding button to SET.
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PANEL	INSTRUCTIONS
<u>с</u> с	1. Press the button in TOP RIGHT to access the menu.
	 Scroll with the two bottom buttons through the various menus, until reaching the menu SETTINGS.
	3. Press the button in correspondence to SET.
M o d e : M A N U M e n u F i r e : 1 F a n : 2	 Scroll with the two bottom buttons through the various menus, until TECHNICAL MENU.
e s c s e t <	5. Press the button in correspondence to SET , and insert the password C 93 with the bottom keys, confirming with OK first the letter and then the number.
esc Set	6. Confirm by pressing the button SET.
< T e c h n i c a l M e n u >	 Scroll through the various menus until AIR FLOW SENSOR.
e s c C 9 3 S e t	
Contraction of the second s	8. Confirm pressing the corresponding button to SET.
esc OFF SSet	Modify the value with the lower keys.
<pre>< 3 c</pre>	10. Confirm pressing the corresponding button to SET.

4.6.3. The Activation/Deactivation of the remote control with the ALL BLACK panel.

PANEL	INSTRUCTIONS
о о о о о	 Press the button in TOP RIGHT to access the menu. Scroll with the two bottom buttons through the various menus, until reaching the menu SETTINGS. Press the button in correspondence to SET. Scroll with the two bottom buttons through the
M o d e : M A N U M e n u	various menus, until TECHNICAL MENU .
F i r e : 1 F a n : 2	5. Press the button in correspondence to SET, and
e s c s e t S e t i n g >	insert the password <u>C 93</u> with the bottom keys, confirming with OK the letter and the number.
	6. Confirm by pressing the button SET.
esc Set	7. Scroll through the various menus until REMOTE
< T e c h n i c a l M e n u >	CONTROL.
e s c C 9 3 S e t <	
	8. Confirm pressing the corresponding button to SET .
	9. Modify the value with the lower keys.
	10. Confirm pressing the corresponding button to SET.
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4.6.4. Activation of outer thermostat as cylinder water sensor (only for HYDRO stoves).

PANNELLO	ISTRUZIONI	
<u>ں</u> م	 Press the button TOP RIGHT to access the MENU. Scroll with the two bottom buttons through the various menus, until reaching the menu SETTINGS. 	
	3. Press the button in correspondence to SET.	
	 Scroll with the two bottom buttons through the various menus, until reaching the TECHNICAL MENU. 	
M o d e : M A N U M e n u F i r e : 1 F a n : 2	5. Press the button in correspondence to SET , and insert the password C 93 with the bottom keys, confirming with OK first the letter and then the number.	
e s c s e t S e t i n q >	6. Confirm by pressing the button SET.	
e s c	 Scroll through the various menus until CYLINDER Confirm by pressing the button OK. 	
	9. Select the pump off temperature on the following	
e s c u 0 f f u 0 K C y l i n d e r B o i l e r e s c 6 0 ° C s s e t - w a t e r t h e m p e r t	page according to the water temperature in the storage tank (default temperature is 47 °C). Note: In case of changes, adjust the temperature close to the temperature set on the storage puffer.	
	Confirm by pressing the button SET.	

4.7. Replacing the ACTIVE motherboard and programming the software from the emergency panel.

The ACTIVE SYSTEM motherboard is unique for all the models and contains the software for all the devices. Upon replacing the component, however, it is necessary to programme the software correctly based on the type of product on which the replacement is being carried out. Let's see how to programme the software.

EMERGENCY PANEL	INSTRUCTIONS
	1. Cut the power to the device using the main switch and disconnecting the power cord.
	2. Replace the motherboard
	3. Reconnect the power cord and turn on the device using the main switch.
	 Within the first 10 seconds (while the GREEN and RED LEDS flash), press and always keep pressed))))
	the button "
	5. On the display the 000 appears
REMOTE REMOTE OFF OFF OFF MAX	6. Press the button TEST several times to select the software code corresponding to the device on which the replacement is being carried out.
	The software codes are as follows:
	001 = Solar – Gea
	002 = Polar – Nova – Athos version MULTAIR
	003 = Polar – Nova version AIR
	004 = Vega – Astra – Aurora – Modulo Pellet
	005 = Antares
	006 = Saturn – Omega – Planet
	007 = PowerSystem
	008 = Panorama
	009 = PowerBox



ON REMOTE OFF MAX MED MIN TEST	 The software codes for NEW ACTIVE models: 01 = Ego – Star AIR – Sagar 02 = Suite – Club – Musa AIR 03 = Suite – Club – Musa – Nima COMFORT AIR 04 = Ego – Star HYDRO 05 = Suite – Club – Musa HYDRO (15 Kw) 06 = PowerTherm – Vivo 80 Pellet 07 = Suite – Club – Musa HYDRO (15 Kw) – Only for the products built after april 2010 with smoke exhauste fun EBM cod. 14508016 08 = Suite – Club – Musa HYDRO (22 Kw) 09 = Toba 10 = Kama – Nasik 11 = Ego-Star COMFORT AIR 12 = Toba COMFORT AIR 13 = Philo 7. Once the software is select release the key 8. Within a few second OFF will appear on the display. This means that the software has been loaded correctly. 9. If 000 persist, repeat the operation.
--	--

4.8. Replacing the ACTIVE motherboard and programming the software from the ALL BLACK panel.

EMERGENCY PANEL	INSTRUCTIONS
	1. Press the button in TOP RIGHT to access the menu.
	 Scroll with the two bottom buttons through the various menus, until reaching the menu SETTINGS.
\circ	3. Press the button in correspondence to SET.
0 0	 Scroll with the two bottom buttons through the various menus, until reaching the TECHNICAL MENU.
	5. Press the button in correspondence to SET , and insert the password C 93 with the bottom keys, confirming with OK first the letter and then the
M o d e n U M e n u F i r e : 1 F a n : 2	number.
	6. Confirm by pressing the button SET.
esc Set	7. Scroll through the various menus until STOVE TYPE.
<pre> S e t t i n g ></pre>	8. On the display the 00 appears
e s c S e t	9. Confirm pressing the corresponding button to SET.
<pre>< T e c h n i c a l M e n u ></pre>	10. Modify the value with the lower keys.
e s c C 9 3 S e t	11. Confirm pressing the corresponding button to SET.
e s c 0 0 0 S e t	The software codes are as follows:
- Stove Type +	01 = Ego – Star AIR – Sagar
	02 = Suite – Club – Musa AIR
	03 = Suite – Club – Musa – Nima COMFORT AIR
	04 = Ego – Star HYDRO
	05 = Suite – Club – Musa HYDRO (15 Kw)
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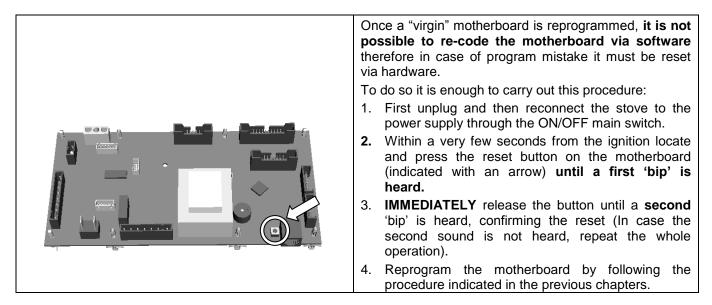


06 = PowerTherm – Vivo 80 Pellet
07 = Suite – Club – Musa HYDRO (15 Kw) – Only for the products built after april 2010 with smoke exhauste fun EBM cod. 14508016
08 = Suite – Club – Musa HYDRO (22 Kw)
09 = Toba
10 = Kama – Nasik
11 = Ego-Star COMFORT AIR
12 = Toba COMFORT AIR
13 = Philo

4.9. Coding the "STOVE TYPE" of the NEW ACTIVE motherboard

In case it is necessary to code a NEW ACTIVE motherboard which is not "virgin" due to a setting mistake, it will be necessary to **reset the hardware of the motherboard** to restore it to its original status.

This reprogramming procedure is not needed for previous version motherboards (Solar or Gea two-layer boards) because they can be reprogrammed directly from the control or emergency panel.



4.10. Information on the operation of the ACTIVE SYSTEM device.

It is possible to recover information on the operation of the device, **while it is on** or during some particular operation phases.

This information is often fundamental to solve problems or to carry out a correct diagnosis of the faults.

EMERGENCY PANEL	INSTRUCTIONS
ON REMOTE OFF MAX MED MIN TEST	Turn the stove off and then back on using the main switch. For the first 10 seconds the two GREEN and RED LEDS flash. Press the button TEST within these 10 seconds . On the display the software version of the motherboard and the loaded software corresponding to the type of the device will appear alternatively.



EMERGENCY PANEL	INSTRUCTIONS
ON REMOTE OFF MAX MED MIN TEST	By pressing the button TEST , when the selector is on the position MAX , it is possible to check the current temperature of the smoke sensor. Example: 126 = 126°C N.B. The position of the first selector (ON-REMOTE- OFF) is unimportant.
MCZ MCZ MCZ MCZ MCZ MCZ MCZ MCZ	By pressing the button TEST when the selector is on the position MED it is possible to check the number of revolutions/minute of the smoke extractor detected by the encoder and the number of litres/minute of air that passes through the flow sensor. Example: 174 = 1740 revolutions/minute 193 = 193 litres/minute N.B. The position of the first selector (ON-REMOTE- OFF) is unimportant.
ON REMOTE OFF MAX MED MIN TEST	By pressing the button TEST , when the selector is on the position MIN , it is possible to check the number of working hours of the device. The information is illustrated at two subsequent times to have a numbering with 6 figures Example: 002 + 734 = 2,734 working hours N.B. The position of the first selector (ON-REMOTE- OFF) is unimportant.
ON REMOTE OFF MAX MED MIN TEST	To cancel any type of alarm, it is compulsory to place the selector on OFF for 10 seconds or until OFF appears on the display. If this operation is not carried out correctly, the device, despite being repaired, WILL NOT TURN ON AGAIN.



"ALL BLACK" CONTROL PANELINSTRUCTIONSImage: Control of the description of the descri	service	07/11 – M.C.
 Interpretation of the state of the	"ALL BLACK" CONTROL PANEL	INSTRUCTIONS
e s c 0 0 V r m s	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	 Press any of the 4 buttons next to the display. Press the TOP RIGHT button corresponding to MENU. With the BOTTOM buttons access INFO Press the TOP RIGHT button corresponding to SET. With the buttons scroll down all the information on the operation of the stove. N.B. Pressing the on/off button, the display returns to

4.11. The technical parameters of the ACTIVE SYSTEM stoves

As for the Pellet Box appliance, ACTIVE SYSTEM devices are also controlled by operating parameters that determine the product's response in the various situations.

ACTIVE SYSTEM PARAMETERS CAN NOT BE CHANGED but knowing this information can certainly be useful to assess whether the product is reacting correctly.

The most important information certainly concerns the number of litres/minute read by the flow sensor and the number of revolutions/minute of the smoke fan to ensure the right supply of combustion air.

As already explained, the speed of the smoke fan changes continuously in order to keep the value measured by the air flow sensor as close as possible to the parameters.

The smoke extraction fan also has its own reference value, which we need to know to be able to understand whether the device is working correctly or an anomaly has occurred.

Example: If at **power 4**, in a **SOLAR** stove, the flow sensor must measure **160 It/min** as minimum intake, the smoke exhaust fan will rotate more or less fast to guarantee this amount of incoming air to the combustion chamber.

Likewise, the smoke fan has a reference value equal to **1,500 rpm**.

In normal conditions of installation and fuel quality, the running values must remain close to the reference value with a tolerance of ~ 20 rpm.

If the smoke exhaust fan must rotate at **1,900 rpm** (400 rpm more than normal) to ensure the value of **160 lt/min** required by the sensor, this installation condition makes the expulsion of smoke and the inlet of combustion air difficult. Alternatively, the grate is very dirty or the flue pipe is blocked, making the expulsion of smoke difficult.

If the smoke fan, at maximum speed (**2,500 rpm**), is unable to guarantee the value of **160 lt/min** required for **15 consecutive minutes**, the device triggers an **alarm A06** (abnormal ratio between the number of revolutions of the fan and the flow of incoming combustion air).



SOLAR / GEA		
Revolution and flow parameters	Values	Unit
Air flow in load wood phase	230	lpm
Minimum value of revolutions of the smoke fan in load wood phase	1900	rpm
Air flow in fire on phase Minimum value of revolutions of the smoke fan in fire on phase	180 1500	lpm
Air flow in power 1	1500	rpm Ipm
Minimum value of revolutions of the smoke fan in power 1	1100	rpm
Air flow in power 2	155	lpm
Minimum value of revolutions of the smoke fan in power 2	1300	rpm
Air flow in power 3	160	lpm
Minimum value of revolutions of the smoke fan in power 3	1500	rpm
Air flow in power 4	165	lpm
Minimum value of revolutions of the smoke fan in power 4 Air flow in power 5	1700	rpm
Minimum value of revolutions of the smoke fan in power 5	1900	lpm rpm
Air flow during thermal shutdown	350	lpm
Minimum value of revolutions during shutdown	2500	rpm
Air flow during grate cleaning	350	lpm
Minimum value of revolutions of smoke fan during grate cleaning	2500	rpm
Air flow during pre-lighting phase.	350	lpm
Minimum value of revolutions during pre-lighting	2500	rpm
Minimum revolutions to detect a flow	600	rpm
Minimum operating flow Rev/flow ratio to detect anomalies	40 20	lpm
Pellet loading parameters	20 Values	Unit
Feed screw operation period.	8	S
Feed screw on time during load wood phase.	3,4	S
Feed screw on time during fire on phase.	3,4	s
Feed screw on time in power 1	2	S
Feed screw on time in power 2	2,9	S
Feed screw on time in power 3	3,8	S
Feed screw on time in power 4	4,7	S
Feed screw on time in power 5 Feed screw on time during grate cleaning	5,6	<u>s</u>
Smoke temperature parameters	S,o Values	Unit
Minimum smoke temperature to consider the stove on	50	°C
Maximum smoke temperature to consider the stove off	45	Ŭ.
Temperature increase when lighting flame LW when hot	5	°C
Minimum smoke temperature to start up the exchanger.	60	°C
Smoke temperature to reduce the exchanger to minimum in ST.	100	°C
Maximum smoke temperature to shut down the exchanger.	55	°C
Pre-alarm threshold for smoke temperature	230	<u> </u>
Alarm threshold for smoke temperature Hysteresis for smoke temperature alarm thresholds	250 5	<u> </u>
Air Exchanger voltage	Values	Unit
Air exchanger voltage in pre-lighting status	183	rms
Air exchanger voltage in load wood status	183	rms
Air exchanger voltage in fire on status	183	rms
Air exchanger voltage after a blackout	170	rms
Air exchanger voltage in power 1	170	rms
Air exchanger voltage in power 2	183	rms
Air exchanger voltage in power 3	196	rms
Air exchanger voltage in power 4 Air exchanger voltage in power 5	209 225	rms rms
Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	170	rms
System time-control	Values	Unit
Duration of reset status	16	S
Duration of lighting display status	5	S
Maximum duration of the load wood phase	18	min
Duration of the fire on phase	5	min
Duration of the sparkplug ignition	18	min
Temperature filtering time window Minimum time interval between two grate cleaning processes	16 30	s min
Minimum time interval between two grate cleaning processes Duration of grate cleaning	30	s min
Duration of the pre-lighting status	30	<u> </u>
Duration of the shutdown standby status	10	S
Duration of the fast thermal shutdown	10	min
Duration of the smoke pre-alarm status	10	min
Maximum duration of the distance between revolutions and flow	15	min
Maximum time before detecting an open door	5	S
Duration of open door status	16	S
Duration of the feed screw shutdown following an open door.	30	S
Time window of the watchdog function. Interval between series of acoustic signals	10 60	<u> </u>
Duration of the acoustic signal in case of alarm	10	s min
System power	Values	Unit
Minimum power level for grate cleaning	3	
Value of the power in smoke pre-alarm	1	



POLAR / NOVA / ATHOS MULTIAIR version

POLAR / NOVA / ATHOS MULITAIR version		
Revolution and flow parameters	Values	Unit
Air flow in load wood phase Minimum value of revolutions of the smoke fan in load wood phase	230	lpm rpm
Air flow in fire on phase	180	lpm
Minimum value of revolutions of the smoke fan in fire on phase	1500	rpm
Air flow in power 1	150	lpm
Minimum value of revolutions of the smoke fan in power 1 Air flow in power 2	1100 155	rpm Ipm
Minimum value of revolutions of the smoke fan in power 2	1300	rpm
Air flow in power 3	160	lpm
Minimum value of revolutions of the smoke fan in power 3	1500	rpm
Air flow in power 4	165	lpm
Minimum value of revolutions of the smoke fan in power 4	1700	rpm
Air flow in power 5 Minimum value of revolutions of the smoke fan in power 5	170 1900	lpm rpm
Air flow during thermal shutdown	350	lpm
Minimum value of revolutions during shutdown	2500	rpm
Air flow during grate cleaning	350	lpm
Minimum value of revolutions of smoke fan during grate cleaning	2500	rpm
Air flow during pre-lighting phase.	350	lpm
Minimum value of revolutions during pre-lighting Minimum revolutions to detect a flow	2500 600	rpm rpm
Minimum operating flow	40	lpm
Rev/flow ratio to detect anomalies	20	ipini
Pellet loading parameters	Values	Unit
Feed screw operation period.	8	S
Feed screw on time during load wood phase.	3,4	S
Feed screw on time during fire on phase.	4	S
Feed screw on time in power 1 Feed screw on time in power 2	2 2,9	s s
Feed screw on time in power 3	3,8	S
Feed screw on time in power 4	4,7	S
Feed screw on time in power 5	5,6	S
Feed screw on time during grate cleaning	3,8	S
Smoke temperature parameters	Values	Unit
Minimum smoke temperature to consider the stove on Maximum smoke temperature to consider the stove off	50 45	0° 0°
Temperature increase when lighting flame LW when hot	5	<u> </u>
Minimum smoke temperature to start up the exchanger.	60	<u> </u>
Smoke temperature to reduce the exchanger to minimum in ST.	100	°C
Maximum smoke temperature to shut down the exchanger.	55	°C
Pre-alarm threshold for smoke temperature	230	⊃° ⊃°
Alarm threshold for smoke temperature		*U
	250	
Hysteresis for smoke temperature alarm thresholds	5 Values	°C Unit
	5	°C
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status	5 Values 183 183	°C Unit
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in fire on status	5 Values 183 183 183	°C Unit rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout	5 Values 183 183 183 183 170	°C Unit rms rms rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1	5 Values 183 183 183 183 170 170	°C Unit rms rms rms rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2	5 Values 183 183 183 170 170 170 183	°C Unit rms rms rms rms rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1	5 Values 183 183 183 183 170 170	°C Unit rms rms rms rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4	5 Values 183 183 183 183 170 170 170 183 196 209 225	°C Unit rms rms rms rms rms rms rms rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5	5 Values 183 183 183 183 170 170 170 183 196 209 225 225 170	°C Unit rms rms rms rms rms rms rms rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	5 Values 183 183 183 183 170 170 170 183 196 209 225 225 170 Values	°C Unit rms rms rms rms rms rms rms rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	5 Values 183 183 183 170 170 170 183 196 209 225 275 170 Values 16	°C Unit ms ms ms ms ms ms ms ms ms ms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	5 Values 183 183 183 183 170 170 170 183 196 209 225 225 170 Values	°C Unit ms ms ms ms ms ms ms ms ms ms ms ms Unit
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	5 Values 183 183 170 170 170 170 170 170 170 170 170 170 183 196 209 225 170 Values 16 5	°C Unit rms rms rms rms rms rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in load wood status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of lighting display status Duration of the fire on phase Duration of the sparkplug ignition	5 Values 183 183 183 170 170 170 209 225 170 170 209 225 170 183 18 5 18 5 18	°C Unit rms rms rms rms rms rms rms rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in load wood status Air exchanger voltage in load wood status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	5 Values 183 183 183 170 170 170 209 225 170 16 5 18 5 18 16	°C Unit ms ms ms ms ms ms ms ms ms Unit s s s min min S
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in load wood status Air exchanger voltage in load wood status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	5 Values 183 183 170 170 170 170 183 196 209 225 170 16 5 18 16 30	°C Unit ms ms ms ms ms ms ms ms ms Unit S S min min min S min
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	5 Values 183 183 170 170 170 170 183 196 209 225 170 Values 16 5 18 16 30 30	°C Unit rms rms rms rms rms rms rms rms
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in load wood status Air exchanger voltage in load wood status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	5 Values 183 183 170 170 170 170 183 196 209 225 170 16 5 18 16 30	°C Unit ms ms ms ms ms ms ms ms ms Unit S S min min min S min
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of lighting display status Maximum duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of grate cleaning Duration of the pre-lighting status Duration of the shutdown standby status Duration of the fast thermal shutdown	5 Values 183 183 183 170 170 170 209 225 170 170 209 225 170 Values 16 5 18 5 18 30 30 10	°C Unit rms rms rms rms rms rms rms rms
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POLAR / NOVA AIR version

POLAR / NOVA AIR version		
Revolution and flow parameters	Values	Unit
Air flow in load wood phase	230	lpm
Minimum value of revolutions of the smoke fan in load wood phase Air flow in fire on phase	<u>1900</u> 180	rpm lpm
Minimum value of revolutions of the smoke fan in fire on phase	1500	rpm
Air flow in power 1	150	lpm
Minimum value of revolutions of the smoke fan in power 1	1100	rpm
Air flow in power 2	155	lpm
Minimum value of revolutions of the smoke fan in power 2	1250	rpm
Air flow in power 3	160	lpm
Minimum value of revolutions of the smoke fan in power 3 Air flow in power 4	<u>1400</u> 165	rpm lpm
Minimum value of revolutions of the smoke fan in power 4	1550	rpm
Air flow in power 5	170	lpm
Minimum value of revolutions of the smoke fan in power 5	1700	rpm
Air flow during thermal shutdown	350	lpm
Minimum value of revolutions during shutdown	2500	rpm
Air flow during grate cleaning Minimum value of revolutions of smoke fan during grate cleaning	<u> </u>	lpm rom
Air flow during pre-lighting phase.	350	rpm lpm
Minimum value of revolutions during pre-lighting	2500	rpm
Minimum revolutions to detect a flow	600	rpm
Minimum operating flow	40	lpm
Rev/flow ratio to detect anomalies	20	
Pellet loading parameters	Values	Unit
Feed screw operation period.	8	s
Feed screw on time during load wood phase. Feed screw on time during fire on phase.	3,4	s s
Feed screw on time during file on phase.	2	s
Feed screw on time in power 1	2,7	s
Feed screw on time in power 3	3,3	s
Feed screw on time in power 4	3,9	S
Feed screw on time in power 5	4,5	s
Feed screw on time during grate cleaning	3,3	S
Smoke temperature parameters	Values	Unit °C
Minimum smoke temperature to consider the stove on Maximum smoke temperature to consider the stove off	50 45	℃
Temperature increase when lighting flame LW when hot	5	 ⊃°
Minimum smoke temperature to start up the exchanger.	60	O°
Smoke temperature to reduce the exchanger to minimum in ST.	100	°C
Maximum smoke temperature to shut down the exchanger.	55	°C
Pre-alarm threshold for smoke temperature	230	<u>°C</u>
Alarm threshold for smoke temperature Hysteresis for smoke temperature alarm thresholds	<u>250</u> 5	℃ ℃
Air Exchanger voltage	Values	Unit
Air exchanger voltage in pre-lighting status	163	rms
Air exchanger voltage in load wood status	163	rms
Air exchanger voltage in fire on status	163	rms
Air exchanger voltage after a blackout	155	rms
Air exchanger voltage in power 1	155	rms
Air exchanger voltage in power 2	<u>163</u> 170	rms
Air exchanger voltage in power 3 Air exchanger voltage in power 4	180	rms rms
Air exchanger voltage in power 5	190	rms
Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	155	rms
System time-control	Values	Unit
Duration of reset status	16	S
Duration of lighting display status	5	S
Maximum duration of the load wood phase Duration of the fire on phase	<u>18</u> 5	min min
Duration of the sparkplug ignition	18	min
Temperature filtering time window	16	S
Minimum time interval between two grate cleaning processes	30	min
Duration of grate cleaning	30	S
Duration of the pre-lighting status	30	S
Duration of the shutdown standby status	10	S
Duration of the fast thermal shutdown Duration of the smoke pre-alarm status	10	min min
Maximum duration of the distance between revolutions and flow	15	min
Maximum time before detecting an open door	5	S
Duration of open door status	16	s
Duration of the feed screw shutdown following an open door.	30	S
Time window of the watchdog function.	10	s
Interval between series of acoustic signals	60	S
Duration of the acoustic signal in case of alarm	10 Values	min
System power Minimum power level for grate cleaning	Values 3	Unit
Value of the power in smoke pre-alarm	<u>3</u>	



VEGA / ASTRA / AURORA / MODULO PELLET

VEGA / ASTRA / AURORA / MODULO PELLET		
Revolution and flow parameters	Values	Unit
Air flow in load wood phase	260	lpm
Minimum value of revolutions of the smoke fan in load wood phase	1900	rpm
Air flow in fire on phase	210	lpm
Minimum value of revolutions of the smoke fan in fire on phase	1500	rpm
Air flow in power 1	180	lpm
Minimum value of revolutions of the smoke fan in power 1	1250	rpm
Air flow in power 2	185	lpm
Minimum value of revolutions of the smoke fan in power 2	1380	rpm
Air flow in power 3	190	lpm
Minimum value of revolutions of the smoke fan in power 3	1500	rpm
Air flow in power 4	195	lpm
Minimum value of revolutions of the smoke fan in power 4	1630	rpm
Air flow in power 5	200	lpm
Minimum value of revolutions of the smoke fan in power 5	1750	rpm
Air flow during thermal shutdown	350	lpm
Minimum value of revolutions during shutdown	2500	rpm
Air flow during grate cleaning	350	lpm
Minimum value of revolutions of smoke fan during grate cleaning	2500	rpm
Air flow during pre-lighting phase.	350	lpm
Minimum value of revolutions during pre-lighting	2500	rpm
Minimum revolutions to detect a flow	600	rpm
Minimum operating flow	40	lpm
Rev/flow ratio to detect anomalies	20	í í
Pellet loading parameters	Values	Unit
Feed screw operation period.	8	S
Feed screw on time during load wood phase.	2,6	s
Feed screw on time during fire on phase.	3	s
Feed screw on time in power 1	2	s
Feed screw on time in power 1	2,8	s
Feed screw on time in power 2	,	
	3,6	s
Feed screw on time in power 4	4,3	S
Feed screw on time in power 5	5,1	S
Feed screw on time during grate cleaning	3,3	S
Smoke temperature parameters	Values	Unit
Minimum smoke temperature to consider the stove on	50	°C
Maximum smoke temperature to consider the stove off	45	°C
Temperature increase when lighting flame LW when hot	5	°C
Minimum smoke temperature to start up the exchanger.	60	°C
Smoke temperature to reduce the exchanger to minimum in ST.	100	°C
Maximum smoke temperature to shut down the exchanger.	55	°C
Pre-alarm threshold for smoke temperature	230	°C
Alarm threshold for smoke temperature	250	°C
Hysteresis for smoke temperature alarm thresholds	5	°C
Air Exchanger voltage	Values	Unit
Air exchanger voltage in pre-lighting status	183	rms
Air exchanger voltage in load wood status	183	rms
Air exchanger voltage in fire on status	183	rms
Air exchanger voltage after a blackout	170	rms
Air exchanger voltage in power 1	170	rms
Air exchanger voltage in power 2	183	rms
Air exchanger voltage in power 3	196	rms
Air exchanger voltage in power 4	209	rms
Air exchanger voltage in power 5	225	rms
Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	170	rms
System time-control	Values	Unit
Duration of reset status	16	S
Duration of lighting display status	5	S
Maximum duration of the load wood phase	18	min
Duration of the fire on phase	5	min
Duration of the sparkplug ignition	18	min
Temperature filtering time window	16	S
Minimum time interval between two grate cleaning processes	30	min
Duration of grate cleaning	30	S
Duration of the pre-lighting status	30	
Duration of the shutdown standby status	10	s
	-	S
Duration of the fast thermal shutdown	10	min
Duration of the smoke pre-alarm status	10	min
Maximum duration of the distance between revolutions and flow	15	min
Maximum time before detecting an open door	5	S
Duration of open door status	16	S
Duration of the feed screw shutdown following an open door.	30	S
Time window of the watchdog function.	10	s
Interval between series of acoustic signals	60	s
	10	min
Duration of the acoustic signal in case of alarm	10	
System power	Values	Unit
		•
System power	Values	•



ANT FACES Revolution and flow parameters Air flow in load wood phase Minimum value of revolutions of the smoke fan in load wood phase Air flow in fire on phase Minimum value of revolutions of the smoke fan in fire on phase Air flow in power 1 Minimum value of revolutions of the smoke fan in power 1 Air flow in power 2 Minimum value of revolutions of the smoke fan in power 2 Air flow in power 3 Minimum value of revolutions of the smoke fan in power 3 Air flow in power 4 Minimum value of revolutions of the smoke fan in power 3 Air flow in power 5 Minimum value of revolutions of the smoke fan in power 4 Air flow in power 5 Minimum value of revolutions of the smoke fan in power 5 Air flow during thermal shutdown Minimum value of revolutions during shutdown Air flow during grate cleaning Minimum value of revolutions during pre-lighting Minimum v	Values 260 1900 210 1500 180 1250 185 1400 190 1540 195 1690 200 1830 350 2500 350 2500 350 2500 350 2500 600 40 20 Values 8 2,6 3 2,9 3,8	Unit Ipm Ipm Ipm Ipm Ipm Ipm Ipm Ipm Ipm Ipm
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Minimum value of revolutions of the smoke fan in power 5 Air flow during thermal shutdown Minimum value of revolutions during shutdown Air flow during grate cleaning Minimum value of revolutions of smoke fan during grate cleaning Air flow during pre-lighting phase. Minimum value of revolutions during pre-lighting Minimum value of revolutions during pre-lighting Minimum value of revolutions during pre-lighting Minimum operating flow Rev/flow ratio to detect anomalies Pellet loading parameters Feed screw operation period. Feed screw on time during load wood phase. Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 4	1830 350 2500 350 2500 350 2500 600 40 20 Values 8 2,6 3 2,6 3 2,2,9	rpm lpm rpm lpm rpm lpm rpm lpm lpm Unit s s s s
Minimum value of revolutions during shutdown Image: Constraint of the state	2500 350 2500 350 2500 600 40 20 Values 8 2,6 3 2 2,9	rpm lpm rpm rpm rpm lpm Unit s s s s
Air flow during grate cleaning Minimum value of revolutions of smoke fan during grate cleaning Air flow during pre-lighting phase. Minimum value of revolutions during pre-lighting Minimum value of revolutions during pre-lighting Minimum value of revolutions during pre-lighting Minimum value of revolutions during pre-lighting Minimum operating flow Rev/flow ratio to detect a flow Minimum operating flow Rev/flow ratio to detect anomalies Pellet loading parameters Feed screw operation period. Feed screw on time during load wood phase. Feed screw on time during fire on phase. Feed screw on time in power 1 Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 4 Feed screw on time in power 5	350 2500 350 2500 600 40 20 Values 8 2,6 3 2 2,9	lpm rpm lpm rpm lpm Unit S S S S
Minimum value of revolutions of smoke fan during grate cleaning Air flow during pre-lighting phase. Minimum value of revolutions during pre-lighting Minimum revolutions to detect a flow Minimum revolutions to detect a flow Minimum operating flow Rev/flow ratio to detect anomalies Pellet loading parameters Feed screw operation period. Feed screw on time during load wood phase. Feed screw on time during fire on phase. Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5	2500 350 2500 600 40 20 Values 8 2,6 3 2,6 3 2 2,9	rpm lpm rpm lpm lpm Unit S S S S
Air flow during pre-lighting phase. Image: Constraint of the second	350 2500 600 40 20 Values 8 2,6 3 2,6 3 2 2,9	lpm rpm lpm Unit s s s s
Minimum value of revolutions during pre-lighting Minimum revolutions to detect a flow Minimum operating flow Rev/flow ratio to detect anomalies Pellet loading parameters Feed screw operation period. Feed screw on time during load wood phase. Feed screw on time during fire on phase. Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5	2500 600 40 20 Values 8 2,6 3 2 2,9	rpm rpm lpm Unit s s s s
Minimum revolutions to detect a flow Minimum operating flow Rev/flow ratio to detect anomalies Pellet loading parameters Feed screw operation period. Feed screw on time during load wood phase. Feed screw on time during fire on phase. Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5	600 40 20 Values 8 2,6 3 2 2,9	rpm lpm Unit s s s s s
Minimum operating flow Rev/flow ratio to detect anomalies Pellet loading parameters Feed screw operation period. Feed screw on time during load wood phase. Feed screw on time during fire on phase. Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5 Feed screw on time in power 5	40 20 Values 8 2,6 3 2 2 2,9	lpm Unit S S S
Rev/flow ratio to detect anomalies Pellet loading parameters Feed screw operation period. Feed screw on time during load wood phase. Feed screw on time during fire on phase. Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5	Values 8 2,6 3 2 2,9	Unit S S S
Feed screw operation period. Feed screw on time during load wood phase. Feed screw on time during fire on phase. Feed screw on time in power 1 Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5	8 2,6 3 2 2,9	\$ \$ \$
Feed screw on time during load wood phase. Feed screw on time during fire on phase. Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5	2,6 3 2 2,9	S S
Feed screw on time during fire on phase. Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5	3 2 2,9	S
Feed screw on time in power 1 Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5	2 2,9	
Feed screw on time in power 2 Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5	2,9	S
Feed screw on time in power 3 Feed screw on time in power 4 Feed screw on time in power 5		S
Feed screw on time in power 5	3,0	S
	4,6	S
Feed screw on time during grate cleaning	5,5	S
	3,7	S
Smoke temperature parameters	Values	Unit
Minimum smoke temperature to consider the stove on Maximum smoke temperature to consider the stove off	50 45	<u>ာ</u> ိ
Temperature increase when lighting flame LW when hot	5	 ℃
Minimum smoke temperature to start up the exchanger.	60	°C
Smoke temperature to reduce the exchanger to minimum in ST.	100	°C
Maximum smoke temperature to shut down the exchanger.	55	°C
Pre-alarm threshold for smoke temperature	230	°C
Alarm threshold for smoke temperature Hysteresis for smoke temperature alarm thresholds	250 5	သိ သိ
Air Exchanger voltage	Values	Unit
Air exchanger voltage in pre-lighting status	183	rms
Air exchanger voltage in load wood status	183	rms
Air exchanger voltage in fire on status	183	rms
Air exchanger voltage after a blackout	170	rms
Air exchanger voltage in power 1	170	rms
Air exchanger voltage in power 2 Air exchanger voltage in power 3	<u>183</u> 196	rms rms
Air exchanger voltage in power 4	209	rms
Air exchanger voltage in power 5	225	rms
Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	170	rms
System time-control	Values	Unit
Duration of reset status Duration of lighting display status	16	S
Maximum duration of the load wood phase	5 18	s min
Duration of the fire on phase	5	min
Duration of the sparkplug ignition	18	min
Temperature filtering time window	16	S
Minimum time interval between two grate cleaning processes	30	min
Duration of grate cleaning	30	S
Duration of the pre-lighting status	<u> </u>	S
Duration of the shutdown standby status Duration of the fast thermal shutdown	10	s min
Duration of the smoke pre-alarm status	10	min
Maximum duration of the distance between revolutions and flow	15	min
Maximum time before detecting an open door	5	S
Duration of open door status	16	S
	30	S
Duration of the feed screw shutdown following an open door.	<u>10</u> 60	s s
Time window of the watchdog function.	00	s min
Time window of the watchdog function. Interval between series of acoustic signals	10	
Time window of the watchdog function. Interval between series of acoustic signals Duration of the acoustic signal in case of alarm	10 Values	Unit
Time window of the watchdog function. Interval between series of acoustic signals		



SATURN / OMEGA / PLANET

Revolution and flow parameters	Values	Unit
Air flow in load wood phase Minimum value of revolutions of the smoke fan in load wood phase	230	lpm rpm
Air flow in fire on phase	180	lpm
Minimum value of revolutions of the smoke fan in fire on phase	1500	rpm
Air flow in power 1	150	lpm
Minimum value of revolutions of the smoke fan in power 1 Air flow in power 2	<u>1100</u> 155	rpm Ipm
Minimum value of revolutions of the smoke fan in power 2	1250	rpm
Air flow in power 3	160	lpm
Minimum value of revolutions of the smoke fan in power 3	<u>1400</u> 165	rpm
Air flow in power 4 Minimum value of revolutions of the smoke fan in power 4	1550	lpm rpm
Air flow in power 5	170	lpm
Minimum value of revolutions of the smoke fan in power 5	1700	rpm
Air flow during thermal shutdown Minimum value of revolutions during shutdown	<u>350</u> 2500	lpm rpm
Air flow during grate cleaning	350	lpm
Minimum value of revolutions of smoke fan during grate cleaning	2500	rpm
Air flow during pre-lighting phase.	350	lpm
Minimum value of revolutions during pre-lighting Minimum revolutions to detect a flow	2500 600	rpm
Minimum operating flow	40	rpm Ipm
Rev/flow ratio to detect anomalies	20	
Pellet loading parameters	Values	Unit
Feed screw operation period.	<u>8</u> 3,2	S
Feed screw on time during load wood phase. Feed screw on time during fire on phase.	3,2	s s
Feed screw on time uning ine on phase.	1,8	S
Feed screw on time in power 2	2,475	S
Feed screw on time in power 3	3,15	S
Feed screw on time in power 4 Feed screw on time in power 5	<u>3,825</u> 4,5	s s
Feed screw on time during grate cleaning	3,2	S
Smoke temperature parameters	Values	Unit
Minimum smoke temperature to consider the stove on	50	٦°
Maximum smoke temperature to consider the stove off	45	<u> </u>
Temperature increase when lighting flame LW when hot Minimum smoke temperature to start up the exchanger.	<u>5</u> 60	<u> </u>
Smoke temperature to reduce the exchanger to minimum in ST.	100	°C
Maximum smoke temperature to shut down the exchanger.	55	٦°
Pre-alarm threshold for smoke temperature	230	<u> </u>
Alarm threshold for smoke temperature Hysteresis for smoke temperature alarm thresholds	<u>250</u> 5	<u> </u>
Air Exchanger voltage	Values	Unit
Air exchanger voltage in pre-lighting status	163	rms
Air exchanger voltage in load wood status	163 163	rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status	163 163 163	rms rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout	163 163	rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2	163 163 163 155 155 155 163	rms rms rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3	163 163 155 155 163 170	rms rms rms rms rms rms rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4	163 163 155 155 163 170 180	rms rms rms rms rms rms rms rms rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3	163 163 155 155 163 170	rms rms rms rms rms rms rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5	163 163 163 155 155 163 170 180 190	rms rms ms rms rms rms rms rms rms rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status	163 163 155 155 163 170 180 190 155 165 163 170 180 190 155 Values 16	rms rms rms rms rms rms rms rms rms rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of lighting display status	163 163 155 155 163 170 180 190 155 163 163 163 163 5	rms rms rms rms rms rms rms rms rms Unit S S
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status	163 163 155 155 163 170 180 190 155 Values 16 5 18	rms rms rms rms rms rms rms rms Unit s s s min
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	163 163 155 155 163 170 180 190 155 163 170 180 190 155 163 180 190 155 18 5 18 5 18 5 18	rms rms rms rms rms rms rms rms rms Unit S S
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of lighting display status Maximum duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window	163 163 155 155 163 170 180 190 155 16 5 18 5 18 5 18 16	rms rms rms rms rms rms rms rms rms Unit S S S min min min S
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of lighting display status Maximum duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes	163 163 155 155 163 170 180 190 155 163 5 16 5 18 5 18 5 18 5 18 5 18 5 18 5 18 5 30	rms rms rms rms rms rms rms rms rms Unit s s s s s s min min min s min
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of lighting display status Maximum duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of grate cleaning	163 163 155 155 163 170 180 190 155 163 170 180 190 155 18 16 5 18 5 18 30 30 30	rms rms rms rms rms rms rms rms rms Unit s s s s s min min s s min s s
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of lighting display status Maximum duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes	163 163 155 155 163 170 180 190 155 163 5 16 5 18 5 18 5 18 5 18 5 18 5 18 5 18 5 30	rms rms rms rms rms rms rms rms rms Unit s s s s s s min min min s min
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of lighting display status Maximum duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of grate cleaning Duration of the pre-lighting status Duration of the shutdown standby status Duration of the fast thermal shutdown	163 163 155 155 163 170 180 190 155 Values 16 5 18 5 18 16 30 30 30 10	rms rms rms rms rms rms rms rms Unit S S min min min s S min S S S min
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of grate cleaning Duration of the shutdown standby status Duration of the smoke pre-alarm status	163 163 155 155 163 170 180 190 155 16 5 18 5 18 5 18 16 30 30 30 10 10 10	rms rms rms rms rms rms rms rms Unit s s s s min min s s s s min s s s min min s s s s min min min min min s s s s s s min s s s min s s s s s s s s s min s s s s s s s min s min s min s s s s s s min s s s s s s s s s s s s s s s s s s s
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of grate cleaning Duration of the shutdown standby status Duration of the shutdown standby status Duration of the shutdown standby status Duration of the fire and the shutdown standby status Duration of the fire and the shutdown standby status Duration of the fire shutdown Minimum time interval between two grate cleaning processes Duration of the shutdown standby status Duration of the shutdown standby status Duration of the shutdown standby status Duration of the fire and the shutdown Duration of the fire and shutdown Duration of the shutdown standby status Duration of the shutdown standby status Duration of the fire and shutdown Duration of the shutdown status Maximum duration of the distance between revolutions and flow	163 163 155 155 163 170 180 190 155 165 16 5 18 5 18 16 30 30 30 10 10 15	rms rms rms rms rms rms rms rms Unit s S min min min min s s s s s s s s min min min min min min min min min min
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of grate cleaning Duration of the shutdown standby status Duration of the smoke pre-alarm status	163 163 155 155 163 170 180 190 155 16 5 18 5 18 5 18 16 30 30 30 10 10 10	rms rms rms rms rms rms rms rms rms Unit s s s s min min s s s s min s s s min min s s s s min min min min min s s s s s min s s s min s s min s s s min s s s s s s s s s s s s s s s s min s min s min s s s s s s min s s s s s s s s s s s s s s s s s s s
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 3 Air exchanger voltage in power 5 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of lighting display status Maximum duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of grate cleaning Duration of the shutdown standby status Duration of the status Duration of the fast thermal shutdown Duration of the fast thermal shutdown Maximum duration of the distance between revolutions and flow Maximum duration of the distance between revolutions and flow Maximum duration of the distance between revolutions and flow Maximum time before detecting an open door.	$\begin{array}{c} 163 \\ 163 \\ 163 \\ 155 \\ 155 \\ 155 \\ 163 \\ 170 \\ 180 \\ 190 \\ 155 \\ \hline \\ \hline \\ 180 \\ 190 \\ 155 \\ \hline \\ 180 \\ 16 \\ 5 \\ 18 \\ 16 \\ 5 \\ 18 \\ 16 \\ 30 \\ 30 \\ 30 \\ 30 \\ 30 \\ 30 \\ 10 \\ 10$	rms rms rms rms rms rms rms rms rms Unit s s s min min s s s s s min s s s s s s s s s s s s s s s s s s s
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the load wood phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of grate cleaning Duration of the shutdown standby status Duration of the shutdown standby status Duration of the shutdown temper evolutions and flow Maximum duration of the distance between revolutions and flow Maximum time before detecting an open door Duration of the watchdog function.	163 163 155 155 163 170 180 190 155 Values 16 5 18 5 18 16 30 30 10 10 15 5 16 30 30 30 10	rms s s min min min s s s s s s s s s s s s s
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	163 163 155 155 163 170 180 190 155 163 170 180 190 155 Values 16 5 18 16 30 30 30 10 15 5 16 30 30 10 10 15 5 16 30 10 10 10 10 15 5 16 30 10 10 10 10 10 10 10 10 10 10 10 10 10<	rms rms rms rms rms rms rms rms rms rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the load wood phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of grate cleaning Duration of the shutdown standby status Duration of the shutdown standby status Duration of the shutdown temper evolutions and flow Maximum duration of the distance between revolutions and flow Maximum time before detecting an open door Duration of the watchdog function.	163 163 155 155 163 170 180 190 155 Values 16 5 18 5 18 16 30 30 10 10 15 5 16 30 30 30 10	rms s s min min min s s s s s s s s s s s s s
Air exchanger voltage in load wood status Air exchanger voltage in fire on status Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	163 163 155 155 163 170 180 190 155 163 170 180 190 155 Values 16 5 18 16 30 30 30 10 10 15 5 16 30 30 10 10 10 10 10 10 60 10 10 10 10 10 10 60 10	rms rms rms rms rms rms rms rms rms Unit s s s s s min min s s s s s s s s s s s s s s s s s s s



POWER SYSTEM

POWER SYSTEM		
Revolution and flow parameters	Values	Unit
Air flow in load wood phase	210	lpm
Animum value of revolutions of the smoke fan in load wood phase	2300	rpm
ir flow in fire on phase /inimum value of revolutions of the smoke fan in fire on phase	170 1900	lpm rpm
ir flow in power 1	130	lpm
linimum value of revolutions of the smoke fan in power 1	1500	rpm
ir flow in power 2	135	lpm
finimum value of revolutions of the smoke fan in power 2	1700	rpm
ir flow in power 3	140	lpm
Inimum value of revolutions of the smoke fan in power 3	1900	rpm
ir flow in power 4	145	lpm
linimum value of revolutions of the smoke fan in power 4 ir flow in power 5	2100 150	rpm
linimum value of revolutions of the smoke fan in power 5	2300	lpm rpm
ir flow during thermal shutdown	350	lpm
Inimum value of revolutions during shutdown	2500	rpm
ir flow during grate cleaning	350	lpm
finimum value of revolutions of smoke fan during grate cleaning	2500	rpm
ir flow during pre-lighting phase.	350	lpm
linimum value of revolutions during pre-lighting	2500	rpm
linimum revolutions to detect a flow	600	rpm
linimum operating flow	40	lpm
ev/flow ratio to detect anomalies	25	
ellet loading parameters	Values	Unit
eed screw operation period.	8 3	S
eed screw on time during load wood phase.	3	s s
eed screw on time in power 1	2	s S
eed screw on time in power 1	2.8	S
eed screw on time in power 3	3,6	S
eed screw on time in power 4	4,4	S
eed screw on time in power 5	5,2	S
eed screw on time during grate cleaning	3	S
moke temperature parameters	Values	Unit
linimum smoke temperature to consider the stove on	50	0°
Iaximum smoke temperature to consider the stove off	45	°C
emperature increase when lighting flame LW when hot	5	<u>°C</u>
linimum smoke temperature to start up the exchanger.	60	<u>°C</u> O°
moke temperature to reduce the exchanger to minimum in ST. Aaximum smoke temperature to shut down the exchanger.	100 55	<u>℃</u>
Pre-alarm threshold for smoke temperature	240	<u> </u>
larm threshold for smoke temperature	240	<u> </u>
lysteresis for smoke temperature alarm thresholds	5	°Č
ir Exchanger voltage	Values	Unit
Air exchanger voltage in pre-lighting status	183	rms
ir exchanger voltage in load wood status	183	rms
ir exchanger voltage in fire on status	183	rms
ir exchanger voltage after a blackout	170	rms
ir exchanger voltage in power 1	170	rms
ir exchanger voltage in power 2	183	rms
ir exchanger voltage in power 3	196	rms
ir exchanger voltage in power 4	209 225	rms
ir exchanger voltage in power 5 ir exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	170	rms rms
ystem time-control	Values	Unit
uration of reset status	16	S
uration of lighting display status	5	s
laximum duration of the load wood phase	18	min
uration of the fire on phase	5	min
uration of the sparkplug ignition	18	min
emperature filtering time window	16	S
inimum time interval between two grate cleaning processes	30	min
uration of grate cleaning	30	S
uration of the pre-lighting status	30 10	S
uration of the shutdown standby status uration of the fast thermal shutdown	10	s min
uration of the smoke pre-alarm status	10	min
aximum duration of the distance between revolutions and flow	15	min
aximum time before detecting an open door	5	S
uration of open door status	16	s
uration of the feed screw shutdown following an open door.	30	S
ime window of the watchdog function.	10	S
terval between series of acoustic signals	60	S
uration of the acoustic signal in case of alarm	10	min
ir flow in load wood phase	20	min
linimum value of revolutions of the smoke fan in load wood phase	1 (active)	
	Values	Unit
ystem power inimum power level for grate cleaning	3	



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remperature filtering time window16sMinimum time interval between two grate cleaning processes30minDuration of grate cleaning30sDuration of grate cleaning30sDuration of the pre-lighting status30sDuration of the shutdown standby status10sDuration of the fast thermal shutdown10minDuration of the status10minDuration of the distance between revolutions and flow15minMaximum duration of the distance between revolutions and flow16sDuration of the feed screw shutdown following an open door.30sDuration of the ead screw shutdown following an open door.30sDuration of the acoustic signals60sDuration of the acoustic signals10minMinimum power level for grate cleaning310	Duration of the fire on phase		
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Vinimum power level for grate cleaning 3	Duration of the acoustic signal in case of alarm		min
	System power		Unit
	value of the power in stricke pre-alaliti		



Rev. 09 07/11 – M.C.

Revolution and flow parameters	Values	Unit
Air flow in load wood phase	220	lpm
Minimum value of revolutions of the smoke fan in load wood phase	2100	rpm
Air flow in fire on phase Minimum value of revolutions of the smoke fan in fire on phase	170 1700	lpm
Air flow in power 1	140	rpm Ipm
Minimum value of revolutions of the smoke fan in power 1	140	rpm
Air flow in power 2	145	lpm
Minimum value of revolutions of the smoke fan in power 2	1400	rpm
Air flow in power 3	150	lpm
Minimum value of revolutions of the smoke fan in power 3	1600	rpm
Air flow in power 4	155	lpm
Minimum value of revolutions of the smoke fan in power 4	1800	rpm
Air flow in power 5	160	lpm
Minimum value of revolutions of the smoke fan in power 5	2000	rpm
Air flow during thermal shutdown Minimum value of revolutions during shutdown	350 2500	lpm
Air flow during grate cleaning	350	rpm lpm
Minimum value of revolutions of smoke fan during grate cleaning	2500	rpm
Air flow during pre-lighting phase.	350	lpm
Minimum value of revolutions during pre-lighting	2500	rpm
Minimum revolutions to detect a flow	600	rpm
Minimum operating flow	40	lpm
Rev/flow ratio to detect anomalies	20	
Pellet loading parameters	Values	Unit
Feed screw operation period.	8	S
Feed screw on time during load wood phase.	3	S
Feed screw on time during fire on phase.	3	S
Feed screw on time in power 1	1,6	S
Feed screw on time in power 2 Feed screw on time in power 3	2,1	S S
Feed screw on time in power 3	3,2	S
Feed screw on time in power 5	3,7	S
Feed screw on time during grate cleaning	2,5	S
Smoke temperature parameters	Values	Unit
Minimum smoke temperature to consider the stove on	50	°C
Maximum smoke temperature to consider the stove off	45	°C
Temperature increase when lighting flame LW when hot	5	°C
Minimum smoke temperature to start up the exchanger.	60	C°
Smoke temperature to reduce the exchanger to minimum in ST.	100	C°
Maximum smoke temperature to shut down the exchanger.	55	°C
Pre-alarm threshold for smoke temperature	240	°C
Alarm threshold for smoke temperature	260	<u>0°</u>
Hysteresis for smoke temperature alarm thresholds	5	°C Unit
Air Exchanger voltage Air exchanger voltage in pre-lighting status	Values 183	rms
Air exchanger voltage in load wood status	183	rms
		rms
	183	
Air exchanger voltage in fire on status	183 170	rms
Air exchanger voltage in fire on status Air exchanger voltage after a blackout	170	rms
Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3	170 170 183 196	rms rms
Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4	170 170 183 196 209	rms rms rms rms rms
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Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control	170 170 183 196 209 225 170 Values	rms rms rms rms rms rms rms Unit
Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status	170 170 183 196 209 225 170 Values 16	rms rms rms rms rms rms rms Unit S
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Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of grate cleaning	170 170 183 196 209 225 170 Values 16 5 20 5 20 5 20 16 30 30	rms rms rms rms rms rms rms Unit S S s min min min S
Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of lighting display status Maximum duration of the load wood phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of the pre-lighting status	170 170 183 196 209 225 170 Values 16 5 20 5 20 16 30 30 30	rms rms rms rms rms rms rms Unit S S S min min S S min S S S
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Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the load wood phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of the pre-lighting status Duration of the shutdown standby status Duration of the fast thermal shutdown	170 170 183 196 209 225 170 Values 16 5 20 5 20 16 30 30 30 10	rms rms rms rms rms ms Unit S S min min min S S S min S S S S min
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Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of the shutdown standby status Duration of the shutdown standby status Duration of the shutdown standby status Duration of the stat thermal shutdown Duration of the fast thermal shutdown Maximum duration of the distance between revolutions and flow Maximum duration of the distance between two grate develops and flow Maximum duration of the distance between revolutions and flow	170 170 183 196 209 225 170 Values 16 5 20 5 20 16 30 30 30 10 10 5 5	rms s min s s s s min min min min s s s s min min s
Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of the pre-lighting status Duration of the shutdown standby status Duration of the shutdown standby status Duration of the fast thermal shutdown Duration of the fast thermal shutdown Maximum duration of the distance between revolutions and flow Maximum duration of the distance between revolutions and flow	170 170 183 196 209 225 170 Values 16 5 20 5 20 16 30 30 10 10 15 5 10 10 15 5 16	rms s min s s min min s s s s s s s s
Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of the shutdown standby status Duration of the fast thermal shutdown Duration of the sonke pre-alarm status Maximum duration of the distance between revolutions and flow Maximum time before detecting an open door Duration of open door status Duration of the feed screw shutdown following an open door.	170 170 183 196 209 225 170 Values 16 5 20 5 20 16 30 30 30 10 10 5 5	rms s min s s s s min min min min s s s s min min s
Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the load wood phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of the pre-lighting status Duration of the shutdown standby status Duration of the shutdown standby status Duration of the some per-alarm status Maximum duration of the distance between revolutions and flow Maximum time before detecting an open door Duration of open door status	170 170 183 196 209 225 170 Values 16 5 20 5 20 16 30 30 10 10 15 5 16	rms s s min s s s s s s s s s s s s s s s s s s
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Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the load wood phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of the pre-lighting status Duration of the shutdown standby status Duration of the fast thermal shutdown Duration of the fast thermal shutdown Maximum duration of the distince between revolutions and flow Maximum time before detecting an open door Duration of of the fast stus Duration of of the distince between revolutions and flow Maximum time before detecting an open door. Time window of the watchdog function. Interval between series of acoustic signals Duration of the acoustic signal in case of alarm Air flow in load wood phase	170 170 183 196 209 225 170 Values 16 5 20 5 20 16 30 30 10 15 5 16 30 10 10 10 10 10 10 10 10 10 10 10 20	rms s s min s s min min s s s s s s s s s s s
Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of reset status Duration of the load wood phase Duration of the fire on phase Duration of the fire on phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of the pre-lighting status Duration of the smoke pre-alarm status Duration of the smoke pre-alarm status Maximum duration of the distance between revolutions and flow Maximum duration of the distance between revolutions and flow Maximum duration of the status Duration of the smoke pre-alarm status Maximum duration of the distance between revolutions and flow Maximum duration of the status Duration of the fast thermal shutdown Duration of the smoke pre-alarm status Maximum duration of the distance between revolutions and flow Maximum duration of the status Duration of the fast thermal shutdown Duration of the fast thermal shutdown Duration of the fast thermal shutdown following an open door. Time window of the watchdog function. Interval between series of acoustic signals Duration of the acoustic signals Duration of the acoustic signals Puellet level sensor	170 170 183 196 209 225 170 Values 16 5 20 5 20 16 30 30 30 10 10 5 16 30 30 10 10 60 10 20 110 20 12 130 10 10 20 10 20 10 20 1 20 1 20 1 20 1	rms rms rms rms rms rms rms Unit S S S min min min S S S S S S S S S S S S S S S S S S S
Air exchanger voltage in fire on status Air exchanger voltage after a blackout Air exchanger voltage in power 1 Air exchanger voltage in power 2 Air exchanger voltage in power 3 Air exchanger voltage in power 4 Air exchanger voltage in power 4 Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control Duration of reset status Duration of the load wood phase Duration of the sparkplug ignition Temperature filtering time window Minimum time interval between two grate cleaning processes Duration of the shutdown standby status Duration of the fast thermal shutdown Duration of the shutdown tollowing an open door. Time window of the watchdog function. Interval between series of acoustic signals Duration of the acoustic signals	170 170 183 196 209 225 170 Values 16 5 20 5 20 16 30 30 10 15 5 16 30 10 10 10 10 10 10 10 10 10 10 10 20	rms s min min min s



EGO - STAR - SAGAR AIR version									
Release Software	0101 0103	0204 0209 0401 0404	0210 0405	0406	0407 0408	0409 0411			
Revolution and flow parameters Air flow in load wood phase	Values 210	Values 230	Values 230	Values 230	Values 230	Values 230	Unit Ipm		
Minimum value of revolutions of the smoke fan in load wood phase	1900	1900	1900	1900	1900	1900	rpm		
Air flow in fire on phase	170	180	180	180	180	180	lpm		
Minimum value of revolutions of the smoke fan in fire on phase Air flow in power 1	1500 170	1500 150	1500 150	1500 150	1500 150	1500 150	rpm Ipm		
Minimum value of revolutions of the smoke fan in power 1	1400	1400	1400	1400	1400	1400	rpm		
Air flow in power 2	175	155	155	155	155	155	lpm		
Minimum value of revolutions of the smoke fan in power 2	1550	1550	1550	1550	1550	1550	rpm		
Air flow in power 3 Minimum value of revolutions of the smoke fan in power 3	180 1700	160 1700	160 1700	160 1700	160 1700	160 1700	lpm rpm		
Air flow in power 4	185	165	165	165	165	165	lpm		
Minimum value of revolutions of the smoke fan in power 4	1850	1850	1850	1850	1850	1850	rpm		
Air flow in power 5 Minimum value of revolutions of the smoke fan in power 5	190 2000	170 2000	170 2000	170 2000	170 2000	170 2000	lpm rpm		
Air flow during thermal shutdown	350	150	150	150	150	150	lpm		
Minimum value of revolutions during shutdown	2500	2500	2500	2500	2500	2500	rpm		
Air flow during grate cleaning Minimum value of revolutions of smoke fan during grate cleaning	350 2500	350 2500	350 2500	350 2500	350 2500	350 2500	lpm rpm		
Air flow during pre-lighting phase.	350	150	150	150	150	150	lpm		
Minimum value of revolutions during pre-lighting	2500	2500	2500	2500	2500	2500	rpm		
Air flow during pre-lighting phase when cold			150	150	150	150	lpm		
Minimum value of revolutions during pre-lighting when cold Minimum revolutions to detect a flow	 500	500	2500 500	2500 500	2500 500	2500 500	rpm rpm		
Minimum operating flow	100	120	90	90	90	90	lpm		
Rev/flow ratio to detect anomalies	20	20	27	27	27	27			
Pellet loading parameters	8	8	6	8	0	0	<u>^</u>		
Feed screw operation period. Feed screw on time during load wood phase.	8 3,4	8 3,4	8	8	8	8	s		
Feed screw on time during fire on phase.	3,4	3,4	3	3	3	3	s		
Feed screw on time during pre-lighting when cold			3	3	3	3	S		
Feed screw on time in power 1	2,2	2,2	2,2	2,2	2,2	2,2	S		
Feed screw on time in power 2 Feed screw on time in power 3	2,9 3,8	2,9 3,8	2,7 3,5	2,7 3,5	3 3,9	2,9 3,8	s s		
Feed screw on time in power 4	4,7	4,7	4,3	4,3	4,7	4,7	s		
Feed screw on time in power 5	5,6	5,6	5	5	5,5	5,6	S		
Feed screw on time during grate cleaning Smoke temperature parameters	3,8	3,8	2,7	2,7	2,7	2,7	S		
Minimum smoke temperature to consider the stove on	50	50	50	50	50	50	°C		
Maximum smoke temperature to consider the stove off	45	45	45	45	45	45	°C		
Temperature increase when lighting flame LW when hot	5	5	5	5	5	5	°C		
Minimum smoke temperature to start up the exchanger. Smoke temperature to reduce the exchanger to minimum in ST.	60 100	60 100	60 100	60 100	60 100	60 100	0° ℃		
Maximum smoke temperature to shut down the exchanger.	55	55	55	55	55	55	°C		
Pre-alarm threshold for smoke temperature	200	200	200	200	200	200	°C		
Alarm threshold for smoke temperature	220	220	220	220	220	220	0° 0°		
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage	5	5	5	5	5	5	÷ل		
Air exchanger voltage in pre-lighting status	182	182	182	182	182	182	rms		
Air exchanger voltage in load wood status	182	182	182	182	182	182	rms		
Air exchanger voltage in fire on status	182	182	182	182	182	182	rms		
Air exchanger voltage after a blackout Air exchanger voltage in power 1	174 174	174 174	174	174 174	174 174	174 174	rms rms		
Air exchanger voltage in power 2	182	182	182	182	182	182	rms		
Air exchanger voltage in power 3	197	197	197	197	197	197	rms		
Air exchanger voltage in power 4 Air exchanger voltage in power 5	213 228	213 228	213 228	213 228	213 228	213 228	rms rms		
Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	174	174	174	174	174	174	rms		
System time-control									
Duration of reset status	16 5	16	16 F	16 F	16	16	S		
Duration of lighting display status Maximum duration of cold pre-igniction	5	5	5 30	5 30	5 30	5 30	s s		
Maximum duration of the load wood phase	18	18	18	18	18	18	min		
Duration of the fire on phase	5	5	5	5	5	5	min		
Duration of the sparkplug ignition	18	18	18	18	18	18	min		
Temperature filtering time window Minimum time interval between two grate cleaning processes	16	16	16	16 20	16 30	16 30	s		
Minimum time interval between two short grate cleaning processes	30	30	20	20	20	20	min		
Duration of short grate cleaning				20	10	10	S		
Duration of grate cleaning Duration of the pre-lighting status	30	30	30	45 30	45 30	45 30	s		
Duration of the shutdown standby status	30 10	30 10	<u> </u>	30 10	30 10	30 10	s		
Duration of the fast thermal shutdown	10	10	10	10	10	10	min		
Duration of the smoke pre-alarm status	10	10	10	10	10	20	min		
Maximum duration before detecting a difference between RPM / LPM Duration of open door status	15 16	15 10	20 10	20 10	20 10	20 10	min s		
Duration of open door status Duration of the feed screw shutdown following an open door.	30	20	20	20	20	20	s		
Time window of the watchdog function.	10	10	10	10	10	10	s		
Interval between series of acoustic signals	60	60	60	60	60	60	S		
Duration of the acoustic signal in case of alarm System power	10	10	10	10	10	10	min		
Minimum power level for grate cleaning	3	3	1	3	3	3			
Value of the power in smoke pre-alarm (switching)	1	1	1	1	1	1			



Page 55 Rev. 09 07/11 – M.C.

Pologog Software	0101	0204 0209	0210	0400	0407	0409	
Release Software	0103	0401 0404	0405	0406	0408	0411	
Revolution and flow parameters	Values 230	Values 230	Values 230	Values 230	Values 230	Values 230	Unit Ipm
Air flow in load wood phase Minimum value of revolutions of the smoke fan in load wood phase	1900	1900	1900	1900	1900	1900	rpm
Air flow in fire on phase	180	180	180	180	180	180	lpm
Minimum value of revolutions of the smoke fan in fire on phase Air flow in power 1	1500 170	1500 150	1500 150	1500 150	1500 150	1500 150	rpm Ipm
Minimum value of revolutions of the smoke fan in power 1	1400	1400	1400	1400	1400	1400	rpm
Air flow in power 2	175	155	155	155	155	155	lpm
Minimum value of revolutions of the smoke fan in power 2	1650 180	1650 160	1650 160	1650 160	1650 160	1650 160	rpm
Air flow in power 3 Minimum value of revolutions of the smoke fan in power 3	1800	1800	1800	1800	1800	1800	lpm rpm
Air flow in power 4	185	165	165	165	165	165	lpm
Minimum value of revolutions of the smoke fan in power 4	1950	1950	1950	1950	1950	1950	rpm
Air flow in power 5 Minimum value of revolutions of the smoke fan in power 5	190 2100	170 2100	170 2100	170 2100	170 2100	170 2100	lpm rpm
Air flow during thermal shutdown	350	150	150	150	150	150	lpm
Minimum value of revolutions during shutdown	2500	2500	2500	2500	2500	2500	rpm
Air flow during grate cleaning Minimum value of revolutions of amake for during grate cleaning	350 2500	350 2500	350 2500	350 2500	350 2500	350 2500	lpm
Minimum value of revolutions of smoke fan during grate cleaning Air flow during pre-lighting phase.	350	150	2500	150	150	2500	rpm Ipm
Minimum value of revolutions during pre-lighting	2500	2500	2500	2500	2500	2500	rpm
Air flow during pre-lighting phase when cold			150	150	150	150	lpm
Minimum value of revolutions during pre-lighting when cold Minimum revolutions to detect a flow	600	600	2500 600	2500 600	2500 600	2500 600	rpm rpm
Minimum revolutions to detect a now Minimum operating flow	100	120	90	90	90	90	rpm Ipm
Rev/flow ratio to detect anomalies	20	20	27	27	27	27	
Pellet loading parameters	-			-	-	-	
Feed screw operation period. Feed screw on time during load wood phase.	8 3,4	8 3,4	8	8	8	8	S S
Feed screw on time during fire on phase.	3,4	3,4	3	3	3	3	s
Feed screw on time during pre-lighting when cold			3	3	3	3	S
Feed screw on time in power 1	2,2	2,2	2,2	2,2	2,2	2,2	S
Feed screw on time in power 2 Feed screw on time in power 3	3,1 4,1	3,1 4,1	2,8 3,7	2,8 3,7	3,1 4,1	3,1 4,1	S S
Feed screw on time in power 3	5	5	4,5	4,5	5	5	S
Feed screw on time in power 5	6	6	5,4	5,4	5,9	6	s
Feed screw on time during grate cleaning	3,8	3,8	2,8	2,8	2,8	2,8	S
Smoke temperature parameters Minimum smoke temperature to consider the stove on	50	50	50	50	50	50	°C
Maximum smoke temperature to consider the stove off	45	45	45	45	45	45	°Č
Temperature increase when lighting flame LW when hot	5	5	5	5	5	5	°C
Minimum smoke temperature to start up the exchanger. Smoke temperature to reduce the exchanger to minimum in ST.	60 100	60 100	60 100	60 100	60 100	60 100	°℃ ℃
Maximum smoke temperature to shut down the exchanger.	55	55	55	55	55	55	°C
Pre-alarm threshold for smoke temperature	200	200	200	200	200	200	°C
Alarm threshold for smoke temperature	220	220	220	220	220	220	℃ 0°
Hysteresis for smoke temperature alarm thresholds Air Exchanger voltage	5	5	5	5	5	5	°C
Air exchanger voltage in pre-lighting status	197	197	197	197	197	197	rms
Air exchanger voltage in load wood status	197	197	197	197	197	197	rms
Air exchanger voltage in fire on status	197	197	197	197	197	197	rms
Air exchanger voltage after a blackout Air exchanger voltage in power 1	174 182	174 182	174 182	174 182	174 182	174 182	rms rms
Air exchanger voltage in power 2	197	197	197	197	197	197	rms
Air exchanger voltage in power 3	205	205	205	205	205	205	rms
Air exchanger voltage in power 4	213 228	213 228	213 228	213 228	213 228	213 228	rms
Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	182	182	182	182	182	182	rms rms
System time-control							
Duration of reset status	16	16	16	16	16	16	S
Duration of lighting display status Maximum duration of cold pre-igniction	5	5	5	5	5 30	5	s
Maximum duration of the load wood phase	18		30 18	30 18	30 18	30 18	s min
Duration of the fire on phase	5	5	5	5	5	5	min
Duration of the sparkplug ignition	18	18	18	18	18	18	min
Temperature filtering time window Minimum time interval between two grate cleaning processes	16	16	16	16 20	16 30	16 30	S S
Minimum time interval between two short grate cleaning processes	30	30	20	20	20	20	min
Duration of short grate cleaning				20	10	10	S
Duration of grate cleaning				45	45	45	s
Duration of the pre-lighting status Duration of the shutdown standby status	30 10	30 10	30 10	30 10	30 10	30 10	S S
Duration of the fast thermal shutdown	10	10	10	10	10	10	min
Duration of the smoke pre-alarm status	10	10	10	10	10	20	min
Maximum duration before detecting a difference between RPM / LPM	15	15	20	20	20	20	min
Duration of open door status Duration of the feed screw shutdown following an open door.	16 30	10 20	10 20	10 20	10 20	10 20	s s
Time window of the watchdog function.	10	10	10	10	10	10	s
Interval between series of acoustic signals	60	60	60	60	60	60	s
Duration of the acoustic signal in case of alarm	10	10	10	10	10	10	min
System power	3	3	1	3	3	3	
Minimum power level for grate cleaning							



Release Software

0204 0209

0401 0404

MUSA-SUITE-CLUB-NIMA - COMFORT AIR

Revolution and flow parameters Values Values Values Values Values Values Unit Air flow in load wood phase Ipm Minimum value of revolutions of the smoke fan in load wood phase rpm Air flow in fire on phase lpm Minimum value of revolutions of the smoke fan in fire on phase rpm Air flow in power 1 lpm Minimum value of revolutions of the smoke fan in power 1 rpm Air flow in power 2 lpm Minimum value of revolutions of the smoke fan in power 2 rpm Air flow in power 3 lpm Minimum value of revolutions of the smoke fan in power 3 rpm Air flow in power 4 lpm Minimum value of revolutions of the smoke fan in power 4 rpm Air flow in power 5 lpm Minimum value of revolutions of the smoke fan in power 5 rpm Air flow during thermal shutdown lpm Minimum value of revolutions during shutdown rpm Air flow during grate cleaning lpm Minimum value of revolutions of smoke fan during grate cleaning rpm Air flow during pre-lighting phase lpm Minimum value of revolutions during pre-lighting rpm Air flow during pre-lighting phase when cold lpm Minimum value of revolutions during pre-lighting when cold rpm Minimum revolutions to detect a flow rpm Minimum operating flow lpm Rev/flow ratio to detect anomalies Pellet loading parameters Feed screw operation period. Feed screw on time during load wood phase 3.4 3.4 S r r Feed screw on time during fire on phase 3.4 3.4 s Feed screw on time during pre-lighting when cold s Feed screw on time in power 2,6 2.6 2,4 2,4 2,4 2,4 Feed screw on time in power 2 3,3 3,8 3,8 3,3 3,3 3,8 s Feed screw on time in power 3 s Feed screw on time in power 4 6.1 6.1 5.4 5.4 5.4 6.1 s Feed screw on time in power 5 7,2 7.2 6,5 6,5 6,5 7,2 s 3.8 crew on time during grate cleaning Smoke temperature parameters Minimum smoke temperature to consider the stov °C Maximum smoke temperature to consider the stove off °C Temperature increase when lighting flame LW when hot °C Minimum smoke temperature to start up the exchanger °C Smoke temperature to reduce the exchanger to minimum in ST Maximum smoke temperature to shut down the exchanger °C Pre-alarm threshold for smoke temperature °C Alarm threshold for smoke temperature °C Hysteresis for smoke temperature alarm thresholds °C Air Exchanger voltage Air exchanger voltage in pre-lighting status rms Air exchanger voltage in load wood status rms Air exchanger voltage in fire on status rms Air exchanger voltage after a blackout rms Air exchanger voltage in power 0 Air exchanger voltage in power 1 rms Air exchanger voltage in power 2 rms Air exchanger voltage in power 3 rms Air exchanger voltage in power 4 rms Air exchanger voltage in power 5 rms Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST 15′ rms System time-control Duration of reset status s Duration of lighting display status s Maximum duration of cold pre-igniction S Maximum duration of the load wood phase min Duration of the fire on phase min Duration of the sparkplug ignition min Temperature filtering time window c Minimum time interval between two grate cleaning processes s Minimum time interval between two short grate cleaning processes min Duration of short grate cleaning s Duration of grate cleaning s Duration of the pre-lighting status s Duration of the shutdown standby status s min Duration of the fast thermal shutdown Duration of the smoke pre-alarm status min Maximum duration before detecting a difference between RPM / LPM min Duration of open door status Duration of the feed screw shutdown following an open door. s Time window of the watchdog function. s Interval between series of acoustic signals s Duration of the acoustic signal in case of alarm min System power er level for grate cleaning Value of the power in smoke pre-alarm (switching)

Service Manual - cod. 89070072 - UK

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Page 57 Rev. 09 07/11 – M.C.

Release Software	0204 0209 0401 0404	0210 0405	0406 0408	0409 0411	
Revolution and flow parameters	Values	Values	Values	Values	Unit
Air flow in load wood phase	230	230	230	230	lpm
Minimum value of revolutions of the smoke fan in load wood phase	1900 180	1900	1900 180	1900 180	rpm
Air flow in fire on phase Minimum value of revolutions of the smoke fan in fire on phase	1500	180 1500	1500	1500	lpm rpm
Air flow in power 1	150	150	150	150	lpm
Minimum value of revolutions of the smoke fan in power 1	1300	1300	1300	1300	rpm
Air flow in power 2 Minimum value of revolutions of the smoke fan in power 2	155 1500	155 1500	155 1500	155 1500	lpm rpm
Air flow in power 3	160	160	160	160	lpm
Minimum value of revolutions of the smoke fan in power 3	1700	1700	1700	1700	rpm
Air flow in power 4 Minimum value of revolutions of the smoke fan in power 4	165 1900	165 1900	165 1900	165 1900	lpm rpm
Air flow in power 5	1900	170	1900	1900	lpm
Minimum value of revolutions of the smoke fan in power 5	2100	2100	2100	2100	rpm
Air flow during thermal shutdown	150	150	150	150	lpm
Minimum value of revolutions during shutdown Air flow during grate cleaning	2500 350	2500 350	2500 350	2500 350	rpm Ipm
Minimum value of revolutions of smoke fan during grate cleaning	2500	2500	2500	2500	rpm
Air flow during pre-lighting phase.	150	150	150	150	lpm
Minimum value of revolutions during pre-lighting	2500	2500	2500 150	2500	rpm
Air flow during pre-lighting phase when cold Minimum value of revolutions during pre-lighting when cold		150 2500	2500	150 2500	lpm rpm
Minimum revolutions to detect a flow	600	600	600	600	rpm
Minimum operating flow	120	80	80	80	lpm
Rev/flow ratio to detect anomalies Pellet loading parameters	20	30	30	30	l
Pellet loading parameters Feed screw operation period.	8	8	8	8	S
Feed screw on time during load wood phase.	2	1,8	1,8	1,8	S
Feed screw on time during fire on phase.	2	1,8	1,8	1,8	S
Feed screw on time during pre-lighting when cold Feed screw on time in power 1		1,8 1,2	1,8 1.2	1,8 1.2	s s
Feed screw on time in power 2	2,1	1,6	1,2	1,6	s
Feed screw on time in power 3	2,8	2,2	2,2	2,2	S
Feed screw on time in power 4	3,5	2,8	2,8	2,8	S
Feed screw on time in power 5 Feed screw on time during grate cleaning	4,2	3,4 1,8	3,4 1,8	3,4 1,8	s s
Smoke temperature parameters	_,.	110	1,0	1,0	-
Minimum smoke temperature to consider the stove on	50	45	45	45	°C
Maximum smoke temperature to consider the stove off Temperature increase when lighting flame LW when hot	40 5	40 5	40 5	40 5	℃ ℃
Minimum smoke temperature to start up the exchanger.	60	60			0°C
Smoke temperature to reduce the exchanger to minimum in ST.	100	100			°C
Maximum smoke temperature to shut down the exchanger.	55	55			<u> </u>
Pre-alarm threshold for smoke temperature Alarm threshold for smoke temperature	200 220	200 220	200 220	200 220	℃ ℃
Hysteresis for smoke temperature alarm thresholds	5	5	5	5	°C
Air Exchanger voltage					
Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status					rms
Air exchanger voltage in fire on status					rms
Air exchanger voltage after a blackout					rms
Air exchanger voltage in power 1					rms
Air exchanger voltage in power 2 Air exchanger voltage in power 3					rms rms
Air exchanger voltage in power 4					rms
Air exchanger voltage in power 5					rms
Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST					rms
System time-control					
Duration of reset status	16	16	16	16	S
Duration of lighting display status Maximum duration of cold pre-igniction	5	5	5	5	s s
Maximum duration of the load wood phase	20	16	16	16	min
Duration of the fire on phase	5	5	5	5	min
Duration of the sparkplug ignition	20	18	18	18	min
Temperature filtering time window Minimum time interval between two grate cleaning processes	16	16	16 20	16 20	s s
Minimum time interval between two short grate cleaning processes	20	15	15	15	min
Duration of short grate cleaning			10	10	S
Duration of grate cleaning			45	45	s
Duration of the pre-lighting status Duration of the shutdown standby status	30 10	<u>30</u> 10	30 10	30 10	s s
Duration of the fast thermal shutdown	10	10	10	10	min
Duration of the smoke pre-alarm status	10	10	10	20	min
Maximum duration before detecting a difference between RPM / LPM	15	20	20	20	min
Duration of open door status Duration of the feed screw shutdown following an open door.	10 20	10 20	10 20	10 20	s s
Time window of the watchdog function.	10	10	10	10	S
		00	C0	00	S
Interval between series of acoustic signals	60	60	60	60	
•	60 10	60 10	10	10	min

Service Manual - cod. 89070072 - UK



SERVICE MANUAL

MUSA – CLUB – SUITE Ver. HYDRO (15 Kw)

Release Software	0406	0407	0408	0409 0411	
Revolution and flow parameters	Values	Values	Values	Values	Unit
Air flow in load wood phase Minimum value of revolutions of the smoke fan in load wood phase	230 1600	250 1600	250 1600	250 1600	lpm
Air flow in fire on phase	1800	200	200	200	rpm Ipm
Minimum value of revolutions of the smoke fan in fire on phase	1200	1200	1200	1200	rpm
Air flow in power 1	150	170	170	170	lpm
Minimum value of revolutions of the smoke fan in power 1	900 155	900	900	900	rpm Ipm
Air flow in power 2 Minimum value of revolutions of the smoke fan in power 2	1150	175 1100	175 1100	175 1100	rpm
Air flow in power 3	160	180	180	180	lpm
Vinimum value of revolutions of the smoke fan in power 3	1400	1250	1250	1250	rpm
Air flow in power 4 Minimum value of revolutions of the smoke fan in power 4	165 1650	185 1450	185 1450	185 1450	lpm rpm
Air flow in power 5	170	1450	1450	1430	rpm Ipm
Minimum value of revolutions of the smoke fan in power 5	1900	1600	1600	1600	rpm
Air flow during thermal shutdown	150	150	150	190	lpm
Vinimum value of revolutions during shutdown Air flow during grate cleaning	2500 350	2500 350	2500 350	2300 190	rpm Ipm
Minimum value of revolutions of smoke fan during grate cleaning	2500	2500	2500	2300	rpm
Air flow during pre-lighting phase.	150	150	150	190	lpm
Minimum value of revolutions during pre-lighting	2500	2500	2500	2300	rpm
Air flow during pre-lighting phase when cold Minimum value of revolutions during pre-lighting when cold	150 2500	150 2500	150 2500	190 2300	lpm rom
Vinimum value of revolutions during pre-lighting when cold Vinimum revolutions to detect a flow	600	600	600	600	rpm rpm
Minimum operating flow	90	90	120	120	lpm
Rev/flow ratio to detect anomalies	27	27	21	21	
Pellet loading parameters	0	0	0	0	
Feed screw operation period. Feed screw on time during load wood phase.	8	8 1,8	8	8 1,8	s s
Feed screw on time during fire on phase.	1,8	1,8	1,8	1,8	S
eed screw on time during pre-lighting when cold	1,8	1,8	1,8	1,8	S
Feed screw on time in power 1	1,2	1,2	1,2	1,2	S
Feed screw on time in power 2 Feed screw on time in power 3	2 2,8	2 2,8	2 2,8	2 2,8	s s
Feed screw on time in power 4	3,6	3,6	3,6	3,6	s
eed screw on time in power 5	4,4	4,4	4,4	4,4	S
Feed screw on time during grate cleaning	1,9	1,9	1,9	1,9	S
Smoke temperature parameters Minimum smoke temperature to consider the stove on	45	45	45	45	°C
Maximum smoke temperature to consider the stove off	40	40	40	40	°C
Temperature increase when lighting flame LW when hot	5	5	5	5	°C
Minimum smoke temperature to start up the exchanger.					°C
Smoke temperature to reduce the exchanger to minimum in ST. Maximum smoke temperature to shut down the exchanger.					0° ℃
Pre-alarm threshold for smoke temperature	200	200	200	220	°C
Alarm threshold for smoke temperature	220	220	220	240	°C
Hysteresis for smoke temperature alarm thresholds	5	5	5	5	°C
Air Exchanger voltage Air exchanger voltage in pre-lighting status	182	182	182	182	rms
Air exchanger voltage in load wood status	182	182	182	182	rms
Air exchanger voltage in fire on status	182	182	182	182	rms
Air exchanger voltage after a blackout	174	174	174	174	rms
Air exchanger voltage in power 1 Air exchanger voltage in power 2	174 182	174 182	174 182	174 182	rms rms
Air exchanger voltage in power 2	197	197	197	197	rms
Air exchanger voltage in power 4	213	213	213	213	rms
Air exchanger voltage in power 5	228	228	228	228	rms
Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < IFScST	174	174	174	174	rms
System time-control					
Duration of reset status	16	16	16	16	S
Duration of lighting display status Maximum duration of cold pre-igniction	5	5	5	5	s s
Maximum duration of the load wood phase	16	16	16	16	min
Duration of the fire on phase	5	5	5	5	min
Duration of the sparkplug ignition	18	18	18	18	min
Temperature filtering time window Minimum time interval between two grate cleaning processes	16 30	16 30	16 30	16 30	s s
Ainimum time interval between two short grate cleaning processes	30	30	20	30	min
Duration of short grate cleaning	10	10	10	10	S
Duration of grate cleaning	30	30	30	60	S
Duration of the pre-lighting status	<u>30</u> 10	30 10	30 10	30 10	s s
Duration of the shutdown standby status Duration of the fast thermal shutdown	10	10	10	10	s min
Duration of the smoke pre-alarm status	10	10	10	20	min
Maximum duration before detecting a difference between RPM / LPM	20	20	20	20	min
Duration of open door status	10	10	10	10	s
Duration of the feed screw shutdown following an open door. Time window of the watchdog function.	20 10	20 10	20 10	20 10	s s
nterval between series of acoustic signals	60	60	60	60	S
Duration of the acoustic signal in case of alarm	10	10	10	10	min
System power					,
Inimum power level for grate cleaning	3	3	3	3	I



Page 59	Pa	ge	59
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Rev. 09 07/11 – M.C.

POWERTHERM – VIVO 80 PELLET

Release Software	0204 - 0209	0210 - 0405	0406	0409	
Revolution and flow parameters	0401 – 0404 Values	Values	0408 Values	0411 Values	Unit
Air flow in load wood phase	210	210	210	210	lpm
Minimum value of revolutions of the smoke fan in load wood phase	2300	2300	2300	2300	rpm
Air flow in fire on phase	170	170	170	170	lpm
Minimum value of revolutions of the smoke fan in fire on phase	1900	1900	1900	1900	rpm
Air flow in power 1 Minimum value of revolutions of the smoke fan in power 1	130 1500	150 1500	<u>150</u> 1500	150 1400	lpm rpm
Air flow in power 2	135	155	155	155	lpm
Minimum value of revolutions of the smoke fan in power 2	1700	1700	1700	1600	rpm
Air flow in power 3	140	160	160	160	lpm
Minimum value of revolutions of the smoke fan in power 3	1900 145	1900 165	1900 165	1800 165	rpm
Air flow in power 4 Minimum value of revolutions of the smoke fan in power 4	2100	2100	2100	2000	lpm rpm
Air flow in power 5	150	170	170	170	lpm
Minimum value of revolutions of the smoke fan in power 5	2300	2300	2300	2200	rpm
Air flow during thermal shutdown	150	150	150	150	lpm
Minimum value of revolutions during shutdown Air flow during grate cleaning	2500 350	2500 350	2500 350	2500 350	rpm Ipm
Minimum value of revolutions of smoke fan during grate cleaning	2500	2500	2500	2500	rpm
Air flow during pre-lighting phase.	150	150	150	150	lpm
Minimum value of revolutions during pre-lighting	2500	2500	2500	2500	rpm
Air flow during pre-lighting phase when cold		150	150	150	lpm
Minimum value of revolutions during pre-lighting when cold		2500	2500	2500	rpm
Minimum revolutions to detect a flow Minimum operating flow	600 100	600 90	600 90	600 90	rpm Ipm
Rev/flow ratio to detect anomalies	25	90 27	27	27	
Pellet loading parameters					•
Feed screw operation period.	8,0	8,0	8,0	8	s
Feed screw on time during load wood phase.	3,0	3,0	3,0	3	s
Feed screw on time during fire on phase. Feed screw on time during pre-lighting when cold	3,0	3,0 3,0	3,0 3,0	3	s s
Feed screw on time in power 1	2,0	2,0	2,0	2	s
Feed screw on time in power 2	2,8	2,8	2,8	2,8	S
Feed screw on time in power 3	3,6	3,6	3,6	3,6	S
Feed screw on time in power 4	4,4	4,4	4,4	4,4	s
Feed screw on time in power 5	5,2	5,2	5,2	5,2	S
Feed screw on time during grate cleaning Smoke temperature parameters	3,0	3,0	3,0	3	S
Minimum smoke temperature to consider the stove on	50	50	50	50	°C
Maximum smoke temperature to consider the stove off	45	45	45	45	°C
Temperature increase when lighting flame LW when hot	5	5	5	5	°C
Minimum smoke temperature to start up the exchanger.	60	60	60	60	℃ 00
Smoke temperature to reduce the exchanger to minimum in ST. Maximum smoke temperature to shut down the exchanger.	100 55	100 55	100 55	100 55	℃ ℃
Pre-alarm threshold for smoke temperature	210	210	210	210	°C
Alarm threshold for smoke temperature	230	230	230	230	°C
Hysteresis for smoke temperature alarm thresholds	5	5	5	5	°C
Air Exchanger voltage	100	100	100	100	
Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status	182 182	182 182	182 182	182 182	rms
Air exchanger voltage in fire on status	182	182	182	182	rms rms
Air exchanger voltage after a blackout	182	182	182	182	rms
Air exchanger voltage in power 0			136	136	rms
Air exchanger voltage in power 1	174	174	174	174	rms
Air exchanger voltage in power 2 Air exchanger voltage in power 3	182 197	182 197	182 197	182 197	rms
Air exchanger voltage in power 3 Air exchanger voltage in power 4	205	205	205	205	rms rms
Air exchanger voltage in power 5	228	203	203	203	rms
Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	174	174	174	174	rms
System time-control					
Duration of reset status Duration of lighting display status	16 5	16 5	<u>16</u> 5	16 5	s
Maximum duration of cold pre-igniction		30	30	30	s
Maximum duration of the load wood phase	22	22	22	22	min
Duration of the fire on phase	5	5	5	5	min
Duration of the sparkplug ignition	22	22	22	22	min
Temperature filtering time window Minimum time interval between two grate cleaning processes	16	16	16	16 30	s
Minimum time interval between two grate cleaning processes Minimum time interval between two short grate cleaning processes	30	 20	20 20	30 20	s min
Duration of short grate cleaning			20	10	s
Duration of grate cleaning			45	45	S
Duration of the pre-lighting status	30	30	30	30	S
Duration of the shutdown standby status	10	10	10	10	S
Duration of the fast thermal shutdown Duration of the smoke pre-alarm status	10 10	10 10	<u>10</u> 10	10 20	min min
Maximum duration before detecting a difference between RPM / LPM	15	20	20	20	min
Duration of open door status	10	10	10	10	S
Duration of the feed screw shutdown following an open door.	20	20	20	20	s
Time window of the watchdog function.	10	10	10	10	S
Interval between series of acoustic signals Duration of the acoustic signal in case of alarm	60 10	60 10	60 10	60 10	s min
System power	10	10	10	10	
Minimum power level for grate cleaning	3	3	3	3	
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Page	e 60
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Rev. 09 07/11 – M.C.

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MUSA – CLUB – SUITE Ver. HYDRO (22 Kw)

MUSA – CLUB -	- SUILE V	er. HTDRC) (22 NW)			
Release Software	0406	0407	0408	0409	0410 0411	
Revolution and flow parameters	Values	Values	Values	Values	Values	Unit
Air flow in load wood phase Minimum value of revolutions of the smoke fan in load wood phase	230 1600	250 1600	250 1600	250 1600	250 1600	lpm rpm
Air flow in fire on phase	180	200	200	200	200	lpm
Minimum value of revolutions of the smoke fan in fire on phase	1200	1200	1200	1200	1200	rpm
Air flow in power 1	150	170	170	170	170	lpm
Minimum value of revolutions of the smoke fan in power 1	900 155	900 175	900 175	900 175	900 175	rpm
Air flow in power 2 Minimum value of revolutions of the smoke fan in power 2	1200	1100	1100	1/5	1100	lpm rpm
Air flow in power 3	160	180	180	180	180	lpm
Minimum value of revolutions of the smoke fan in power 3	1500	1300	1300	1300	1300	rpm
Air flow in power 4	165	185	185	185	185	lpm
Minimum value of revolutions of the smoke fan in power 4 Air flow in power 5	1800 170	1600 190	1600 190	1600 190	1600 190	rpm Ipm
Minimum value of revolutions of the smoke fan in power 5	2100	1800	1800	1800	1800	rpm
Air flow in DOMESTIC WATER production	175	175	175	175	200	lpm
Minimum value of revolutions of the smoke fan in DOMESTIC WATER production	2300	2300	2300	2300	2000	rpm
Air flow during thermal shutdown Minimum value of revolutions during shutdown	150 2500	150 2500	150 2500	190 2300	190 2300	lpm rpm
Air flow during grate cleaning	350	350	350	190	190	lpm
Minimum value of revolutions of smoke fan during grate cleaning	2500	2500	2500	2300	2300	rpm
Air flow during pre-lighting phase.	150	150	150	190	190	lpm
Minimum value of revolutions during pre-lighting	2500	2500	2500	2300	2300	rpm
Air flow during pre-lighting phase when cold Minimum value of revolutions during pre-lighting when cold	150 2500	150 2500	150 2500	190 2300	190 2300	lpm rpm
Minimum revolutions to detect a flow	600	600	600	600	600	rpm
Minimum operating flow	90	90	120	120	120	lpm
Rev/flow ratio to detect anomalies	27	27	21	21	21	
Pellet loading parameters	0	0	0	0	0	
Feed screw operation period. Feed screw on time during load wood phase.	8 1,8	8	8 1,8	8 1,8	8 1,8	s
Feed screw on time during foad wood phase.	1,8	1,8	1,8	1,8	1,8	s
Feed screw on time during pre-lighting when cold	1,8	1,8	1,8	1,8	1,8	S
Feed screw on time in power 1	1,2	1,2	1,2	1,2	1,2	S
Feed screw on time in power 2	2,3	2,3	2,3	2,3	2,3	S
Feed screw on time in power 3 Feed screw on time in power 4	3,5 4,6	3,5 4,6	3,5 4,6	3,5 4,6	3,5 4,6	s
Feed screw on time in power 5	5,7	5,7	5,7	5,7	5,7	s
Feed screw on time in DOMESTIC WATER production	6,3	6,3	6,3	6,3	6,3	
Feed screw on time during grate cleaning	2,3	2,3	2,3	2,3	2,3	S
Smoke temperature parameters	45	45	45	45	45	*
Minimum smoke temperature to consider the stove on Maximum smoke temperature to consider the stove off	45 40	45 40	45 40	45 40	45 40	℃
Temperature increase when lighting flame LW when hot	5	5	5	40 5	5	<u>°C</u>
Minimum smoke temperature to start up the exchanger.	100	100	100	100	100	°C
Smoke temperature to reduce the exchanger to minimum in ST.	110	110	110	110	110	°C
Maximum smoke temperature to shut down the exchanger.	90	90	90	90	90	°C
Pre-alarm threshold for smoke temperature Alarm threshold for smoke temperature	220 240	220 240	220 240	250 270	250 270	 ℃
Hysteresis for smoke temperature alarm thresholds	5	5	5	5	5	<u>°C</u>
Air Exchanger voltage						
Air exchanger voltage in pre-lighting status	182	182	182	182	174	rms
Air exchanger voltage in load wood status	182	182	182	182	174	rms
Air exchanger voltage in fire on status Air exchanger voltage after a blackout	182 174	182 174	182 174	182 174	174 174	rms rms
Air exchanger voltage in power 1	174	174	174	174	174	rms
Air exchanger voltage in power 2	182	182	182	182	182	rms
Air exchanger voltage in power 3	197	197	197	197	197	rms
Air exchanger voltage in power 4 Air exchanger voltage in power 5	213 228	213 228	213 228	213 228	213 228	rms rms
Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	174	174	174	174	174	rms
System time-control						
Duration of reset status	16	16	16	16	16	S
Duration of lighting display status	5	5	5	5	5	s
Maximum duration of cold pre-igniction Maximum duration of the load wood phase	2	2 16	2 16	2 16	2 16	s min
Duration of the fire on phase	5	5	5	5	5	min
Duration of the sparkplug ignition	18	18	18	18	18	min
Temperature filtering time window	16	16	16	16	16	S
Minimum time interval between two grate cleaning processes	30	30	30	30	30	S
Minimum time interval between two short grate cleaning processes Duration of short grate cleaning	30 10	30 10	20 10	30 10	30 10	min s
Duration of grate cleaning	30	30	30	60	60	s
Duration of the pre-lighting status	30	30	30	30	30	s
Duration of the shutdown standby status	10	10	10	10	10	s
Duration of the fast thermal shutdown	10	10	10	10	10	min
Duration of the smoke pre-alarm status Maximum duration before detecting a difference between RPM / LPM	10 20	10 20	10 20	20 20	20 20	min min
Duration of open door status	10	10	10	10	10	s
Duration of the feed screw shutdown following an open door.	20	20	20	20	20	s
Time window of the watchdog function.	10	10	10	10	10	S
Interval between series of acoustic signals	60	60	60	60	60	S
Duration of the acoustic signal in case of alarm System power	10	10	10	10	10	min
Minimum power level for grate cleaning	3	3	3	3	3	

Service Manual - cod. 89070072 - UK



MUSA – CLUB – SUITE Ver. HYDRO (15 Kw) – Da APRILE 2010 0409 0407 0408 1

Release Software	0407	0408	0409 0411	
Revolution and flow parameters Air flow in load wood phase	Values 250	Values 250	Values 250	Unit Ipm
Minimum value of revolutions of the smoke fan in load wood phase	1600	1600	1600	rpm
Air flow in fire on phase	200	200	200	lpm
Minimum value of revolutions of the smoke fan in fire on phase	1200	1200	1200	rpm
Air flow in power 1	170	170	170	lpm
Minimum value of revolutions of the smoke fan in power 1	900	900	900	rpm
Air flow in power 2	175	175	175	lpm
Minimum value of revolutions of the smoke fan in power 2 Air flow in power 3	1100 180	1100 180	1100 180	rpm Ipm
Minimum value of revolutions of the smoke fan in power 3	1250	1250	1250	rpm
Air flow in power 4	185	185	185	lpm
Minimum value of revolutions of the smoke fan in power 4	1450	1450	1450	rpm
Air flow in power 5	190	190	190	lpm
Minimum value of revolutions of the smoke fan in power 5	1600	1600	1600	rpm
Air flow during thermal shutdown	150	150	190	lpm
Minimum value of revolutions during shutdown	2500	2500	2300	rpm
Air flow during grate cleaning	350	350 2500	190	lpm
Minimum value of revolutions of smoke fan during grate cleaning	2500 150	150	2300	rpm Ipm
Air flow during pre-lighting phase. Minimum value of revolutions during pre-lighting	2500	2500	2300	rpm
Air flow during pre-lighting phase when cold	150	150	190	lpm
Minimum value of revolutions during pre-lighting when cold	2500	2500	2300	rpm
Minimum revolutions to detect a flow	600	600	600	rpm
Minimum operating flow	90	120	120	lpm
Rev/flow ratio to detect anomalies	27	21	21	
Pellet loading parameters	-	-	-	
Feed screw operation period.	8	8	8	S
Feed screw on time during load wood phase. Feed screw on time during fire on phase.	1,8 1,8	1,8 1,8	1,8	s s
Feed screw on time during pre-lighting when cold	1,8	1,8	1,8	s
Feed screw on time in power 1	1,0	1,0	1,0	S
Feed screw on time in power 2	2	2	2	s
Feed screw on time in power 3	2,8	2,8	2,8	S
Feed screw on time in power 4	3,6	3,6	3,6	S
Feed screw on time in power 5	4,4	4,4	4,4	S
Feed screw on time during grate cleaning	1,9	1,9	1,9	S
Smoke temperature parameters	1-		1-	10
Minimum smoke temperature to consider the stove on	45 40	45 40	45 40	⊃° ⊃°
Maximum smoke temperature to consider the stove off Temperature increase when lighting flame LW when hot	40	5	5	℃
Minimum smoke temperature to start up the exchanger.				 ℃
Smoke temperature to reduce the exchanger to minimum in ST.				°C
Maximum smoke temperature to shut down the exchanger.				°C
Pre-alarm threshold for smoke temperature	200	200	220	°C
Alarm threshold for smoke temperature	220	220	240	C°
Hysteresis for smoke temperature alarm thresholds	5	5	5	°C
Air Exchanger voltage	400	100	100	
Air exchanger voltage in pre-lighting status	182	182	182	rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status	182 182	182 182	182 182	rms rms
Air exchanger voltage after a blackout	174	174	174	rms
Air exchanger voltage in power 1	174	174	174	rms
Air exchanger voltage in power 2	182	182	182	rms
Air exchanger voltage in power 3	197	197	197	rms
Air exchanger voltage in power 4	213	213	213	rms
Air exchanger voltage in power 5	228	228	228	rms
Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	174	174	174	rms
System time-control Duration of reset status	16	16	16	0
Duration of lighting display status	5	5	5	s s
Maximum duration of cold pre-igniction	2	2	2	s
Maximum duration of the load wood phase	16	16	16	min
Duration of the fire on phase	5	5	5	min
Duration of the sparkplug ignition	18	18	18	min
Temperature filtering time window	16	16	16	S
Minimum time interval between two grate cleaning processes	30	30	30	s
Minimum time interval between two short grate cleaning processes	30	20	30	min
Duration of short grate cleaning	10 30	10 30	10 60	S
Duration of grate cleaning Duration of the pre-lighting status	30	30	60 30	s s
Duration of the shutdown standby status	10	10	10	S
Duration of the fast thermal shutdown	10	10	10	min
Duration of the smoke pre-alarm status	10	10	20	min
Maximum duration before detecting a difference between RPM / LPM	20	20	20	min
Duration of open door status	10	10	10	S
Duration of the feed screw shutdown following an open door.	20	20	20	S
Time window of the watchdog function.	10	10	10	S
Interval between series of acoustic signals	60	60	60	s
Duration of the acoustic signal in case of alarm	10	10	10	min
System power Minimum power level for grate cleaning	3	3	3	



Page 62
Rev. 09 07/11 – M.C.

ΤΟΒΑ								
Release Software	0406	0407 0408	0409 0411					
Revolution and flow parameters Air flow in load wood phase	Values 230	Values 230	Values 230	Unit Ipm				
Minimum value of revolutions of the smoke fan in load wood phase	1900	1900	1900	rpm				
Air flow in fire on phase Minimum value of revolutions of the smoke fan in fire on phase	180 1500	180 1500	180 1500	lpm rpm				
Air flow in power 1	150	150	150	lpm				
Minimum value of revolutions of the smoke fan in power 1 Air flow in power 2	1400 155	1400 155	1400 155	rpm Ipm				
Minimum value of revolutions of the smoke fan in power 2	1550	1550	1550	rpm				
Air flow in power 3 Minimum value of revolutions of the smoke fan in power 3	160 1700	160 1700	160 1700	lpm rpm				
Air flow in power 4	165	165	165	lpm				
Minimum value of revolutions of the smoke fan in power 4 Air flow in power 5	1850 170	1850 170	1850 170	rpm Ipm				
Minimum value of revolutions of the smoke fan in power 5	2000	2000	2000	rpm				
Air flow during thermal shutdown	150 2500	150 2500	150 2500	lpm				
Minimum value of revolutions during shutdown Air flow during grate cleaning	350	350	350	rpm Ipm				
Minimum value of revolutions of smoke fan during grate cleaning	2500	2500	2500	rpm				
Air flow during pre-lighting phase. Minimum value of revolutions during pre-lighting	150 2500	150 2500	150 2500	lpm rpm				
Air flow during pre-lighting phase when cold	150	150	150	lpm				
Minimum value of revolutions during pre-lighting when cold Minimum revolutions to detect a flow	2500 500	2500	2500 500	rpm				
Minimum revolutions to detect a flow Minimum operating flow	90	500 90	500 90	rpm Ipm				
Rev/flow ratio to detect anomalies	27	27	27	· · · · · · · · · · · · · · · · · · ·				
Pellet loading parameters Feed screw operation period.	8	8	8	s				
Feed screw on time during load wood phase.	3	3	3	s				
Feed screw on time during fire on phase. Feed screw on time during pre-lighting when cold	3	3	3	s s				
Feed screw on time during pre-lighting when cold	2,2	2,2	2,2	s				
Feed screw on time in power 2	2,7	3	3	s				
Feed screw on time in power 3 Feed screw on time in power 4	3,5 4,3	3,9 4.7	3,9 4.7	s				
Feed screw on time in power 5	5	5,5	5,5	s				
Feed screw on time during grate cleaning	2,7	2,7	2,7	S				
Smoke temperature parameters Minimum smoke temperature to consider the stove on	50	50	50	°C				
Maximum smoke temperature to consider the stove off	45	45	45	°C				
Temperature increase when lighting flame LW when hot Minimum smoke temperature to start up the exchanger.	5 60	5 60	5 60	ာ သိ				
Smoke temperature to reduce the exchanger to minimum in ST.	100	100	100	°C				
Maximum smoke temperature to shut down the exchanger. Pre-alarm threshold for smoke temperature	55 200	55 200	55 200	°℃ ℃				
Alarm threshold for smoke temperature	220	220	220	°C				
Hysteresis for smoke temperature alarm thresholds	5	5	5	°C				
Air Exchanger voltage Air exchanger voltage in pre-lighting status	184	184	184	rms				
Air exchanger voltage in load wood status	184	184	184	rms				
Air exchanger voltage in fire on status Air exchanger voltage after a blackout	<u>184</u> 184	184 184	184 184	rms rms				
Air exchanger voltage in power 1	184	184	184	rms				
Air exchanger voltage in power 2 Air exchanger voltage in power 3	199 212	199 212	199 212	rms rms				
Air exchanger voltage in power 5	212	212	212	rms				
Air exchanger voltage in power 5	228	228	228	rms				
Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST System time-control	174	174	174	rms				
Duration of reset status	16	16	16	S				
Duration of lighting display status Maximum duration of cold pre-igniction	5 30	5 30	5 30	s				
Maximum duration of the load wood phase	18	18	18	min				
Duration of the fire on phase	5	5	5	min				
Duration of the sparkplug ignition Temperature filtering time window	<u>18</u> 16	<u>18</u> 16	18 16	min s				
Minimum time interval between two grate cleaning processes	30	30	30	s				
Minimum time interval between two short grate cleaning processes Duration of short grate cleaning	20	20	20 10	min				
Duration of grate cleaning	45	45	45	s				
Duration of the pre-lighting status Duration of the shutdown standby status	30 10	30 10	30 10	s				
Duration of the fast thermal shutdown	10	10	10	s min				
Duration of the smoke pre-alarm status	10	10	20	min				
Maximum duration before detecting a difference between RPM / LPM Duration of open door status	20 10	20 10	20 10	min s				
Duration of the feed screw shutdown following an open door.	20	20	20	s				
Time window of the watchdog function.	10	10	10	s				
Interval between series of acoustic signals Duration of the acoustic signal in case of alarm	60 10	<u>60</u> 10	60 10	s min				
System power								
Minimum power level for grate cleaning	3	3	3					



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Release Software	0406 0408	0409 0410	0411	
Revolution and flow parameters	Values	Values	Values	Unit
Air flow in load wood phase Minimum value of revolutions of the smoke fan in load wood phase	230 1900	230 1900	230 1900	lpm rpm
Air flow in fire on phase	180	180	180	lpm
Minimum value of revolutions of the smoke fan in fire on phase	1500	1500	1500	rpm
Air flow in power 1	150	150	150	lpm
Minimum value of revolutions of the smoke fan in power 1	1400 155	1400	1400 155	rpm Ipm
Air flow in power 2 Minimum value of revolutions of the smoke fan in power 2	1530	155 1530	155	rpm
Air flow in power 3	160	160	160	lpm
Minimum value of revolutions of the smoke fan in power 3	1650	1650	1650	rpm
Air flow in power 4 Minimum value of revolutions of the smoke fan in power 4	165 1780	165 1780	165 1780	lpm
Air flow in power 5	1780	1780	1780	rpm Ipm
Minimum value of revolutions of the smoke fan in power 5	1900	1900	1900	rpm
Air flow during thermal shutdown	150	150	150	lpm
Minimum value of revolutions during shutdown	2500 350	2500	2500	rpm
Air flow during grate cleaning Minimum value of revolutions of smoke fan during grate cleaning	2500	350 2500	350 2500	lpm rpm
Air flow during pre-lighting phase.	150	150	150	lpm
Minimum value of revolutions during pre-lighting	2500	2500	2500	rpm
Air flow during pre-lighting phase when cold	150	150	150	lpm
Minimum value of revolutions during pre-lighting when cold Minimum revolutions to detect a flow	2500 600	2500 600	2500 600	rpm rpm
Minimum revolutions to detect a flow Minimum operating flow	90	90	90	rpm Ipm
Rev/flow ratio to detect anomalies	27	27	27	
Pellet loading parameters				
Feed screw operation period.	8	8	8 3	s
Feed screw on time during load wood phase. Feed screw on time during fire on phase.	3	3	3	s
Feed screw on time during pre-lighting when cold	3	3	3	s
Feed screw on time in power 1	2,2	2,2	2,2	S
Feed screw on time in power 2	2,7	2,7	3	s
Feed screw on time in power 3 Feed screw on time in power 4	3,2 3,7	3,2 3,7	3,7 4,5	s
Feed screw on time in power 5	4,2	4,2	4,5	s
Feed screw on time during grate cleaning	2,7	2,7	2,7	s
Smoke temperature parameters				
Minimum smoke temperature to consider the stove on	50	50	50	°C 0°
Maximum smoke temperature to consider the stove off Temperature increase when lighting flame LW when hot	45 5	45 5	45 5	℃ ℃
Minimum smoke temperature to start up the exchanger.	60	60	60	°C
Smoke temperature to reduce the exchanger to minimum in ST.	100	100	100	°C
Maximum smoke temperature to shut down the exchanger.	55	55	55	ာ့ သ
Pre-alarm threshold for smoke temperature Alarm threshold for smoke temperature	200	200 220	200 220	℃ ℃
Hysteresis for smoke temperature alarm thresholds	5	5	5	°C
Air Exchanger voltage				
Air exchanger voltage in pre-lighting status	166	166	166	rms
Air exchanger voltage in load wood status Air exchanger voltage in fire on status	166 166	<u>166</u> 166	166 166	rms
Air exchanger voltage after a blackout	151	151	151	rms
Air exchanger voltage in power 1	151	151	151	rms
Air exchanger voltage in power 2	166	166	166	rms
Air exchanger voltage in power 3	174	174	174	rms
Air exchanger voltage in power 4 Air exchanger voltage in power 5	205 228	205 228	205 228	rms rms
Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	151	151	151	rms
System time-control				
Duration of reset status	16	16	16	S
Duration of lighting display status Maximum duration of cold pre-igniction	5 30	5 30	5 30	s
Maximum duration of the load wood phase	18	18	18	min
Duration of the fire on phase	5	5	5	min
Duration of the sparkplug ignition	18	18	18	min
Temperature filtering time window	16	16	16 30	s
Minimum time interval between two grate cleaning processes Minimum time interval between two short grate cleaning processes	30 20	30 20	20	s min
Duration of short grate cleaning	10	10	10	S
Duration of grate cleaning	45	45	45	s
Duration of the pre-lighting status	30	30	30	S
Duration of the shutdown standby status Duration of the fast thermal shutdown	10	10 10	10 10	s min
Duration of the fast thermal shutdown Duration of the smoke pre-alarm status	10	10 20	10 20	min
Maximum duration before detecting a difference between RPM / LPM	20	20	20	min
Duration of open door status	10	10	10	S
Duration of the feed screw shutdown following an open door.	20	20	20	S
Time window of the watchdog function. Interval between series of acoustic signals	10 60	10 60	10 60	s
Duration of the acoustic signal in case of alarm	10	10	60 10	s min
System power				
Minimum power level for grate cleaning	3	3	3	
Value of the power in smoke pre-alarm (switching)	1	1	1	



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EGO-STAR COMFORT AIR

Release Software 0410 - 0411 Petrolicity of fore parameter Petrolicity of fore parameter <th colspan="4">EGO-STAR COMFORT AIR</th>	EGO-STAR COMFORT AIR			
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Duration of the smoke pre-alarm status 20 Maximum duration before detecting a difference between RPM / LPM 20 Duration of open door status 10 Duration of the feed screw shutdown following an open door. 20 Time window of the watchdog function. 10 Interval between series of acoustic signals 60 Duration of the acoustic signal in case of alarm 10			S	
Maximum duration before detecting a difference between RPM / LPM 20 Duration of open door status 10 Duration of open door status 20 Duration of the feed screw shutdown following an open door. 20 Time window of the watchdog function. 10 Interval between series of acoustic signals 60 Duration of the acoustic signal in case of alarm 10			min min	
Duration of open door status 10 Duration of the feed screw shutdown following an open door. 20 Time window of the watchdog function. 10 Interval between series of acoustic signals 60 Duration of the acoustic signal in case of alarm 10 System power 10			min	
Duration of the feed screw shutdown following an open door. 20 Time window of the watchdog function. 10 Interval between series of acoustic signals 60 Duration of the acoustic signal in case of alarm 10			S	
Time window of the watchdog function. 10 Interval between series of acoustic signals 60 Duration of the acoustic signal in case of alarm 10 System power 10			s	
Duration of the acoustic signal in case of alarm 10 System power	Time window of the watchdog function.		S	
System power			S	
		10	min	
	System power Minimum power level for grate cleaning	3		
Value of the power in smoke pre-alarm (switching) 1				



TOBA COMFORT AIR

Release Software	0410 - 0411	
Revolution and flow parameters Air flow in load wood phase	Values 230	Unit Ipm
Vinimum value of revolutions of the smoke fan in load wood phase	1900	rpm
Air flow in fire on phase	180	lpm
linimum value of revolutions of the smoke fan in fire on phase	1500	rpm
tir flow in power 1	150	lpm
linimum value of revolutions of the smoke fan in power 1 ir flow in power 2	<u>1400</u> 155	rpm Ipm
linimum value of revolutions of the smoke fan in power 2	1550	rpm
Air flow in power 3	160	Ipm
Vinimum value of revolutions of the smoke fan in power 3	1700	rpm
ir flow in power 4 Iinimum value of revolutions of the smoke fan in power 4	165 1850	lpm rpm
ir flow in power 5	170	lpm
linimum value of revolutions of the smoke fan in power 5	2000	rpm
ir flow during thermal shutdown	150	lpm
linimum value of revolutions during shutdown	2500	rpm
ir flow during grate cleaning	350	lpm
Inimum value of revolutions of smoke fan during grate cleaning	<u>2500</u> 150	rpm
ir flow during pre-lighting phase. Iinimum value of revolutions during pre-lighting	2500	lpm rpm
ir flow during pre-lighting phase when cold	150	lpm
inimum value of revolutions during pre-lighting when cold	2500	rpm
inimum revolutions to detect a flow	500	rpm
inimum operating flow	90	lpm
ev/flow ratio to detect anomalies	27	
ellet loading parameters eed screw operation period.	8	S
eed screw operation period. eed screw on time during load wood phase.	3	S
eed screw on time during fire on phase.	3	S
eed screw on time during pre-lighting when cold	3	S
eed screw on time in power 1	2,2	s
eed screw on time in power 2	2,9	S
eed screw on time in power 3 eed screw on time in power 4	<u>3,8</u> 4,7	s s
eed screw on time in power 5	5,6	s
eed screw on time during grate cleaning	2,7	S
moke temperature parameters		
inimum smoke temperature to consider the stove on	50	°C
laximum smoke temperature to consider the stove off	45	°C
emperature increase when lighting flame LW when hot linimum smoke temperature to start up the exchanger.	5 60	<u> </u>
moke temperature to reduce the exchanger to minimum in ST.	100	
laximum smoke temperature to shut down the exchanger.	55	°C
re-alarm threshold for smoke temperature	200	°C
larm threshold for smoke temperature	220	°C
ysteresis for smoke temperature alarm thresholds	5	C°
ir Exchanger voltage ir exchanger voltage in pre-lighting status	182	rms
ir exchanger voltage in load wood status	182	rms
ir exchanger voltage in fire on status	182	rms
ir exchanger voltage after a blackout	174	rms
ir exchanger voltage in power 1	174	rms
ir exchanger voltage in power 2	182	rms
ir exchanger voltage in power 3	<u>193</u> 197	rms
ir exchanger voltage in power 4 ir exchanger voltage in power 5	203	rms rms
ir exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	174	rms
ystem time-control		
uration of reset status	16	S
uration of lighting display status	5	s
aximum duration of cold pre-igniction aximum duration of the load wood phase	30	s min
uration of the fire on phase	5	min
uration of the sparkplug ignition	18	min
emperature filtering time window	16	S
inimum time interval between two grate cleaning processes	30	s
inimum time interval between two short grate cleaning processes	20	min
uration of short grate cleaning uration of grate cleaning	<u> </u>	s s
uration of the pre-lighting status	30	s
uration of the shutdown standby status	10	s
uration of the fast thermal shutdown	10	min
uration of the smoke pre-alarm status	20	min
laximum duration before detecting a difference between RPM / LPM	20	min
uration of open door status	10 20	S
uration of the feed screw shutdown following an open door. ime window of the watchdog function.	20	s s
nterval between series of acoustic signals	60	s
uration of the acoustic signal in case of alarm	10	min
ystem power		
	3	



PHILO		
Release Software	0411	
Revolution and flow parameters	Values	Unit
Air flow in load wood phase Minimum value of revolutions of the smoke fan in load wood phase	230 1900	lpm rpm
Air flow in fire on phase	180	lpm
Minimum value of revolutions of the smoke fan in fire on phase Air flow in power 1	1500 150	rpm
Minimum value of revolutions of the smoke fan in power 1	1500	lpm rpm
Air flow in power 2	155	lpm
Minimum value of revolutions of the smoke fan in power 2	1650 160	rpm
Air flow in power 3 Minimum value of revolutions of the smoke fan in power 3	1800	lpm rpm
Air flow in power 4	165	lpm
Minimum value of revolutions of the smoke fan in power 4	1950	rpm
Air flow in power 5 Minimum value of revolutions of the smoke fan in power 5	170 2100	lpm rpm
Air flow during thermal shutdown	150	lpm
Minimum value of revolutions during shutdown	2500	rpm
Air flow during grate cleaning Minimum value of revolutions of smoke fan during grate cleaning	350 2500	lpm rpm
Air flow during pre-lighting phase.	150	lpm
Minimum value of revolutions during pre-lighting	2500	rpm
Air flow during pre-lighting phase when cold	150	lpm
Minimum value of revolutions during pre-lighting when cold Minimum revolutions to detect a flow	2500 600	rpm rpm
Minimum operating flow	90	lpm
Rev/flow ratio to detect anomalies	27	
Pellet loading parameters	8	S
Feed screw operation period. Feed screw on time during load wood phase.	3	s
Feed screw on time during fire on phase.	3	S
Feed screw on time during pre-lighting when cold	3	S
Feed screw on time in power 1 Feed screw on time in power 2	2,5 3,7	s s
Feed screw on time in power 2	4,9	s
Feed screw on time in power 4	6,1	S
Feed screw on time in power 5	7,3	s
Feed screw on time during grate cleaning Smoke temperature parameters	3,3	S
Minimum smoke temperature to consider the stove on	50	°C
Maximum smoke temperature to consider the stove off	45	0 °
Temperature increase when lighting flame LW when hot Minimum smoke temperature to start up the exchanger.	5 60	℃ ℃
Smoke temperature to reduce the exchanger to minimum in ST.	100	°C
Maximum smoke temperature to shut down the exchanger.	55	°C
Pre-alarm threshold for smoke temperature Alarm threshold for smoke temperature	250 270	⊃° ⊃°
Hysteresis for smoke temperature alarm thresholds	5	°C
Air Exchanger voltage		
Air exchanger voltage in pre-lighting status Air exchanger voltage in load wood status	166 166	rms
Air exchanger voltage in fire on status	166	rms
Air exchanger voltage after a blackout	151	rms
Air exchanger voltage in power 0	136	rms
Air exchanger voltage in power 1 Air exchanger voltage in power 2	151 166	rms rms
Air exchanger voltage in power 3	174	rms
Air exchanger voltage in power 4	205	rms
Air exchanger voltage in power 5 Air exchanger voltage in thermal shutdown when TFScOff < Tfumi < TFScST	228 151	rms rms
System time-control	151	11115
Duration of reset status	16	S
Duration of lighting display status Maximum duration of cold pre-igniction	5 30	s
Maximum duration of the load wood phase	18	s min
Duration of the fire on phase	5	min
Duration of the sparkplug ignition	18	min
Temperature filtering time window Minimum time interval between two grate cleaning processes	16 30	s s
Minimum time interval between two grate cleaning processes Minimum time interval between two short grate cleaning processes	20	min
Duration of short grate cleaning	10	S
Duration of grate cleaning Duration of the pre-lighting status	45 30	S
Duration of the pre-lighting status Duration of the shutdown standby status	10	s s
Duration of the fast thermal shutdown	10	min
Duration of the smoke pre-alarm status	20	min
Maximum duration before detecting a difference between RPM / LPM Duration of open door status	20 10	min s
	20	s
Duration of the feed screw shutdown following an open door.		
Duration of the feed screw shutdown following an open door. Time window of the watchdog function.	10	S
Duration of the feed screw shutdown following an open door. Time window of the watchdog function. Interval between series of acoustic signals	60	S
Duration of the feed screw shutdown following an open door. Time window of the watchdog function. Interval between series of acoustic signals Duration of the acoustic signal in case of alarm		
Duration of the feed screw shutdown following an open door. Time window of the watchdog function. Interval between series of acoustic signals	60	S



4.12. Boot-loader

The boot-loader is a small electronic device created exclusively for reprogramming and updating electronic board software and firmware (INCLUDED IN MCZ AUTHORISED SERVICE CENTRE EQUIPMENT). The device contains eight internal memory positions in which software/firmware of the various electronic boards is stored. In the MCZ boot-loader only two memory positions are used (1 and 2) corresponding to the two different motherboards (ACTIVE SYSTEM and NEW ACTIVE SYSTEM). Memory positions can be recognised and selected by means of small switches on the device itself.

Software reprogramming may be very useful for correcting software errors notified by the manufacturer (bugs), for editing device operating parameters (loading, etc.) or for restoring faulty electronic boards.



Reprogramming cancels all data stored on motherboard and restores default settings to

guarantee complete solution of all software problems. A fault that persists after resetting the software/firmware can only be caused by a hardware fault (e.g. blown relay, faulty transformer, etc.).

In the parameter tables above, each column indicates a firmware version (e.g. 0408, 0410, etc.). The increasing digits indicate an increasingly more updated software/firmware version.

To check whether the motherboard actually needs to be updated, read the firmware version in the INFO menu of the ALL BLACK control panel or press the emergency panel TEST button within the first 10 seconds after turning on the general power supply of the stove.

Operating and using the device is very simple. Just plug the boot-loader into the motherboard when this is not powered. The boot-loader will automatically start the motherboard reprogramming cycle when the motherboard is powered up.

4.12.1. Update the motherboard by means of boot-loader



Important: All operations must be carried out in the sequence shown. Electronic components could be damaged if the procedure is not carefully respected step by step.

Check the code of the board fitted on the stove in one of the following manners:

- by reading the code written on the label on the motherboard
- by means of the All-Black panel display (go to MENU > INFO > BOARD CODE)
- by reading the code on the emergency panel: set switch to MAX, turn power of the stove off and back on (by pressing the orange main switch) and immediately press and hold the TEST button.

Set switch of required software to lower position

Lower the switch corresponding to the firmware to be loaded on the boot-loader according to the previously identified board code (all other switches must be up).

Firmware	Firmware update	Switch to be lowered	A 7359
M5401XX	from M5401 01 to M5401 03	1	
M5402XX	from M5402 01 to M5402 XX	1	4 5 6 7 8
M5404XX	from M5404 01 to M5404 XX	2	

Disconnect stove power (rear button 0/1)



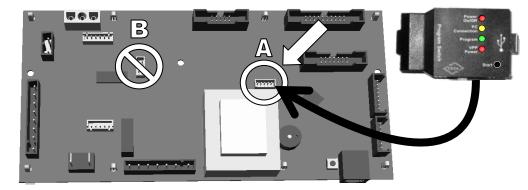
Caution: Cut the device off before connecting and disconnecting the boot-loader to avoid damaging the components.

Connect boot-loader wire

Access motherboard from right side of product. Plug the boot-loader into the white connector "A" near the motherboard transformer (see arrow).

CAUTION: THERE ARE TWO IDENTICAL CONNECTORS: PLUG INTO CONNECTOR "A".





Turn stove on

Turn power on by means of the orange main switch (O/I switch to I).

The red "**POWER ON/OFF**" LED will blink on the boot-loader. The red and green LEDs will blink in synch on the motherboard.

Start reprogramming

- Press the "START" button on the boot-loader. The reprogramming procedure will start (during this step, the LEDs of the motherboard and of the boot-loader will light up in various combinations).
- During this step, simply wait for the boot-loader to complete reprogramming without touching the device (approximately 2 minutes).
- Programming is completed when the green "PROGRAM" LED lights up fixed and the red "POWER ON/OFF" LED blinks on the boot-loader. The red and green LEDs will blink on the motherboard at the same time.
- Repeat the programming procedure to be sure in case of other LED combinations.

Turn power off and disconnect boot-loader

After programming, turn the device off again by means of the main switch (O/I switch to **0**), and then unplug the boot-loader from the motherboard.

After updating, simply turn the device back on without any other operation.

Set the stove type

As previously mentioned, reprogramming will reset all stored data. Consequently, the software code of the appliance where the motherboard is installed must be reset. Set the "STOVE TYPE" code following the instructions contained in this manual.

4.12.2. Boot-loader update

The boot-loader may and must be updated whenever MCZ notifies that a software update is available. To update the boot-loader, simply download the most recent available software package and the software for managing and updating the boot-loader from the "NEWS" section of the web site at <u>www.mczservice.it</u>.

Connect the boot-loader to your PC using a standard USB cable (identical to that used for normal printers) and start the management program containing the new software. A quick guide to help you update the device is included in the downloaded software package.



5. THE ALARMS AND TROUBLE SHOOTING

5.1. The alarms in the PELLET BOX device

TYPE OF PANEL	ALARMS ON THE LED PANEL		
	NO ACC	Failure to light	
	NO FIRE	Fire extinguishes abnormally	
	SIC FAIL	Hopper	overheats T>110°C
	HOT TEMP	Smoke	temperature high
	DEP FAIL	Flue pipe blocked.	
	FAN FAIL	Smoke exhaust fan damaged	
	SOND FUMI	Smoke temperature sensor broken.	
	ALARMS VALID ONLY FOR THE HYDRO STOVES		
	SIC FAIL	Overheating of the water in the boiler T>90°C	
	PRES H2O	System pressure < 0.5 bar > 2.5 bar	
	ALARMS ON THE LCD PANEL		N THE LCD PANEL
	NO START	•	Failure to light
	NO FIRE		Fire extinguishes abnormally
	PELLET TEMP		Hopper overheats
	SMOKE TEMP		Smoke temperature high
	SMOKE DEPR		Flue pipe blocked
	SMOKE FAN		Smoke exhaust fan damaged
	SMOKE PROBE		Smoke temperature sensor broken.

5.2. The alarms in the ACTIVE SYSTEM device

	ALARMS ON THE EMERGENCY and LCD PANEL	
	A01	Failure to light
	A02	Fire extinguishes abnormally
	A03	Hopper overheats T>110°C
MC	A04	Smoke temperature high
	A05	Flue pipe blocked
ON CON	A06	The number of litres of incoming air is insufficient. Often signifies problems with a blocked grate.
	A07	Door door or no air passage for the sensor
	A08	Smoke exhaust fan damaged
	A09	Smoke temperature sensor broken.
	A10	Sparkplug broken
	A11	Reduction motor defective
		The remote control is out of range for more than 3 hours
^ن o o ن	A13	No communication of a component with the board
	A14	Flow sensor defective
	A17	Water overheating in the boiler T>110°C (Mod. Ego- Star-Musa-Club-Suite HYDRO)
	A18	Water pump stuck (Ego-Star-Musa-Club-Suite HYDRO)
	PELLETS	No pellets in the hopper



5.3. Trouble shooting

5.3.1. A01 / NO ACC / NO START

The alarm **FAILURE TO LIGHT** of the device is signalled when within **15 minutes** predicted for the lighting, the smoke temperature sensor does not reach **50°C**.

This problem may occur for the following causes:

- Infiltration of air from the seal gaskets of the door and the cleaning compartment.
- Problems in loading the fuel.
- In the cases of lighting, starting with feed screw empty
- Malfunction in the ignition plug
- Incorrect position or presence of dirt in the grate

ATTENTION!!

The stove only lights if all the gaskets guarantee the perfect seal of the combustion chamber.

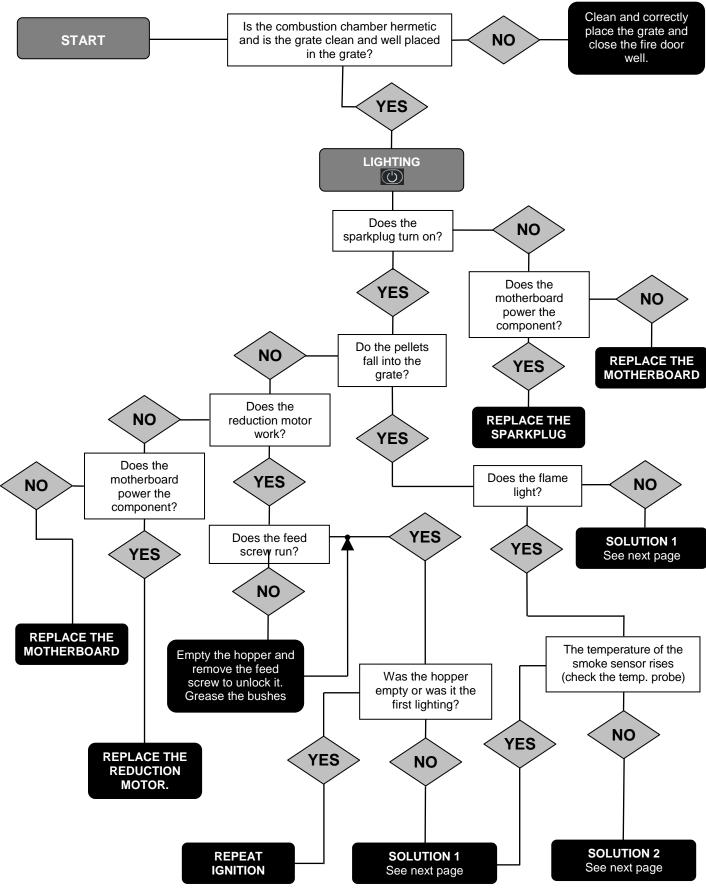
- Check that the opening panels for special cleaning are well closed and do not have leaks.
- Check that seal of the gasket in the panel to inspect the smoke fan
- Check the hermetic seal of the door seal by using a sheet of paper. Place the sheet of paper between the fire door and the structure, close the door, and try to remove the sheet of paper. If the sheet of paper moves easily, it is necessary to check or replace the door seal. On the contrary the seal still complies with the specifications. Carry out this check along the entire perimeter of the door seal
- Check the seal of the gasket of the door and the ash drawer, with the same method described above.
- Check that the eccentric bush of the handle of the door is well blocked.
- Check the correct position of the grate and that its holes are all clean
- Check that the hopper is full of pellets

CARRY OUT THESE CHECKS, PROCEED WITH THE SUBSEQUENT FAULT DETECTION DIAGRAM



Page 71 Rev. 09 07/11 - M.C.

DIAGRAM no°1 ALARMS: A01 / NO ACC / NO START





SOLUTION 1

If electronic and mechanical components are all working perfectly and the combustion chamber is perfectly sealed, **the fault must be sought in the assembly formed by brazier, igniter duct and air intake duct**. The most likely causes are determined by excessive distance between igniter duct and brazier

hole. In this case, it may be useful to:

- Eliminate spacers from igniter duct on models where this is possible (ANTARES-VEGA-ASTRA-AURORA-MODULO). Eliminate as many spacers needed until the tip of the duct nearly touches the brazier.
- Widen the hole of the brazier to Ø 12 mm.
- Check that the holes of the igniter duct are free and allow easy introduction of air to be heated and start-up.
- On NEW ACTIVE SYSTEM appliances (Ego-Star-Suite-Musa-Club) make sure that ignition duct is present with rear intake holes outside the brazier pocket (code *41200903900).*
- On POLAR and NOVA PELLET BOX models, check for presence of the combustion air reduction flange code **43640499G**. This is mandatory on air models but not on HYDRO models and may solve start-up problems.

SOLUTION 2

In this case, the fume sensor only is responsible for the problem. The fume sensor temperature does not increase and thus the sensor is not indicating the correct temperature to the motherboard even if the flame is lit; therefore, "START-UP FAILED" alarm is triggered at the end of the start-up process (15 minutes).

To check fume sensor temperature simply hold the **0** button pressed or press the **TEST** button on the emergency panel with the switch on **MAX** or on the **INFO** menu on ALL BLACK panels.

In this case, check whether:

- the fume sensor is correctly positioned and consequently not in contact with hot fumes
- the fume sensor is insulated by too much silicon contained in the well
- the fume sensor is wired incorrectly; reversing the polarity, the sensor always indicates minimum value (30 °C)

Note: The fume sensor in this case is not damaged: the alarm on the panel would be different if it were (i.e. FUME SENS ALARM or A09).

5.3.2. A02 / NO FIRE / NO FIRE

This type of alarm occurs when the fume sensor drops **under the minimum temperature threshold set in parameters** (e.g. 45 °C or 50 °C). Possible causes are:

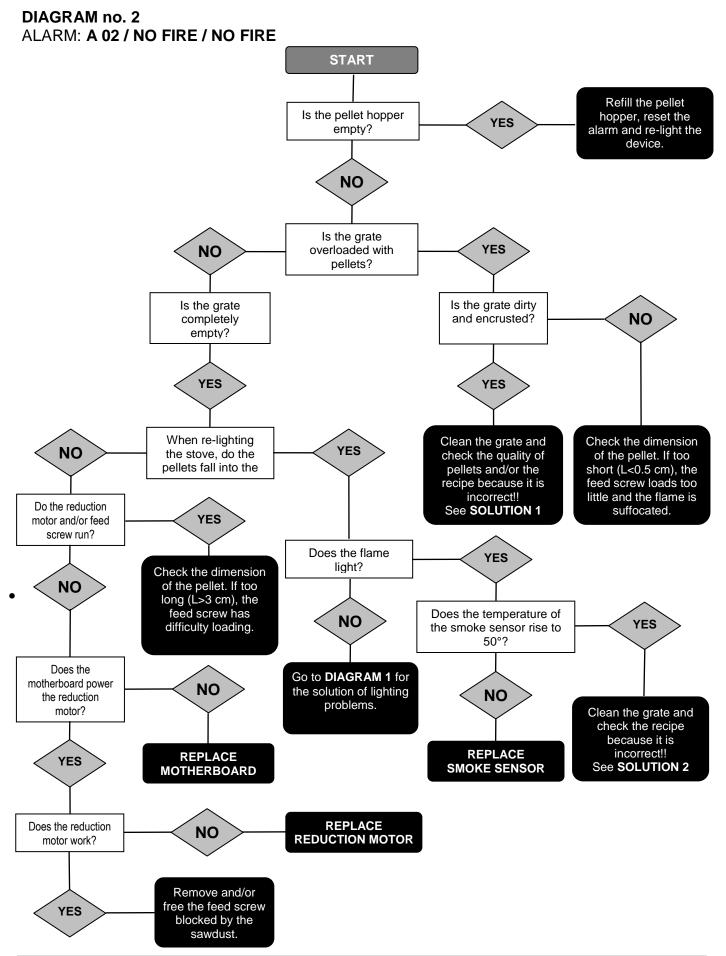
- Poor fuel rate in the grate due to an incorrect setting of the recipe and, therefore, extinguishing of the fire due to the absence of pellets to be burnt.
- Excessive fuel rate in the grate due to an incorrect setting of the recipe and therefore suffocating the flame.
- Pellet hopper empty
- Smoke sensor that does not correctly detect the temperature of the smoke.

The stove works correctly and the combustion is regular, only if all the gaskets guarantee the perfect seal of the combustion chamber.

- Check that the opening panels for special cleaning are well closed and do not have leaks.
- Check that seal of the gasket in the panel to inspect the smoke fan
- Check the hermetic seal of the door seal by using a sheet of paper.
- Place the sheet of paper between the fire door and the structure, close the door, and try to remove the sheet of paper. If the sheet of paper moves easily, it is necessary to check or replace the door seal. On the contrary the seal still complies with the specifications. Carry out this check along the entire perimeter of the door seal.
- Check the seal of the gasket of the door and the ash drawer, with the same method described above.
- Check that the eccentric bush of the handle of the door is well blocked.
- Check the correct position of the grate and that its holes are all clean
- Check that the hopper is full of pellets.

CARRY OUT THESE CHECKS, PROCEED WITH THE SUBSEQUENT FAULT DETECTION DIAGRAM





Service Manual - cod. 89070072 - UK



SOLUTION 1

In this case the problem is due to an incorrect choice of the recipe that causes:

- Excessive high load of fuel
- Incorrect interpretation of the type of installation (VERTICAL or HORIZONTAL)
- Poor quality of the fuel that releases material and obstructs the holes of the grate.

In this case it may be worth:

- Change the fuel with a certified type (DIN +, etc...)
- If the clogging and the consequent extinguishing of the fire occur in the long term (7-8 hours), it may be sufficient **to increase** the recipe (e.g.: from M6 to M7) to slightly decrease the quantity of pellets entering the combustion chamber. If available, it may be worthwhile also considering increasing the recipe by two points, to solve more serious clogging problems.
- If the clogging and consequent extinguishing of the fire occur in the short term (2-3 hours), it is necessary to modify the recipe from VERTICAL to HORIZONTAL to increase the speed of the smoke fan and therefore the combustion air in the combustion chamber. Pass to the corresponding recipe (e.g.: from M2 to M6). Assess whether to decrease the load of fuel by subsequently raising the recipe (e.g.: from M6 to M7).

Should the problems not be solved, the solutions are:

- Modify the technical parameters to further increase the fan and decrease the pellet load.
- Modify the installation

SOLUTION 2

In this case the problem is due to an incorrect choice of the recipe that causes:

- Poor load of fuel
- Incorrect interpretation of the type of installation (HORIZONTAL or VERTICAL)
- Poor quality of the fuel that releases material and obstructs the holes of the grate.

In this case it may be worth:

- Change the fuel with a certified type (DIN +, etc...)
- If the flame always remains low also at maximum power it means it is necessary to **decrease** the recipe (e.g.: from M7 to M6) to increase the quantity of pellets entering the combustion chamber.
- For more serious situations, which also involve poor efficiency and heating, **modify** the recipe from HORIZONTAL to VERTICAL to decrease the combustion air in the combustion chamber and especially the drive of the smoke to the exterior. The excessive drive, in certain cases also assisted by a flue pipe with a good draught, may cause the leakage of the smoke, and therefore heat, too quickly.

5.3.3. A03 / SIC FAIL / PELLET TEMP and H2O TEMP

This type of alarm occurs when the bulb thermostat or the contact thermostat placed on the hopper, exceed the safety temperature set at 110°C.

This alarm may also intervene in the case in which the temperature of the water in the boiler exceeds the temperature of 90°C. In the HYDRO stoves there is a second safety bulb thermostat to avoid that the water in the boiler boils.

This safety may intervene in the case in which:

FOR ALL THE DEVICES

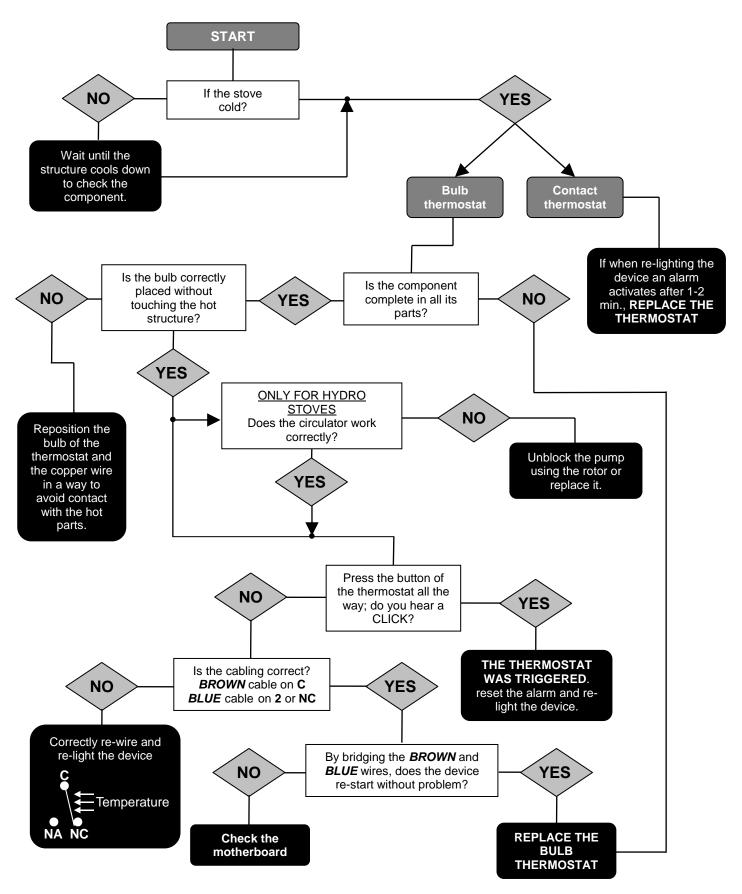
- 1. The device has worked for too many hours at maximum power and with the hot air fan at low levels.
- 2. The mediocre quality of pellets causes the overheating of the structure.
- 3. The recipe or the calibration of the combustion is incorrect and the flame is always very high because of excess of fuel.
- 4. Blocking or breakdown of the hot air fan that also deals with the cooling of the structure.
- 5. Damaging the bulb / contact thermostat

FOR ALL HYDRO DEVICES

- 6. The water does not circulate in the system and remains in the boiler overheating it.
- 7. The thermostat is placed out of the well and touches the metal parts.



DIAGRAM no. 3 ALARM: A 03 / SIC FAIL / TEMP PELLET and/or H₂O





5.3.4. A04 / HOT TEMP / SMOKE TEMP

Overheating of the smoke over a certain safety temperature that may range between **250°C and 280°C** based on the product type. The causes of this problem may be:

- Uncertified pellets containing chemical substances (glue, thickening agents, etc..) that raise the temperature.
- High levels of dirt and ash within the smoke passageway chamber. The ash insulates the heat-exchange walls and does not allow the disposal of the heat. **COMPLETELY CLEAN THE DEVICE.**
- Incorrect recipe and constant overloading of fuel that causes the temperature to rise.

5.3.5. A05 / DEP FAIL / SMOKE NEGATIVE PRESSURE

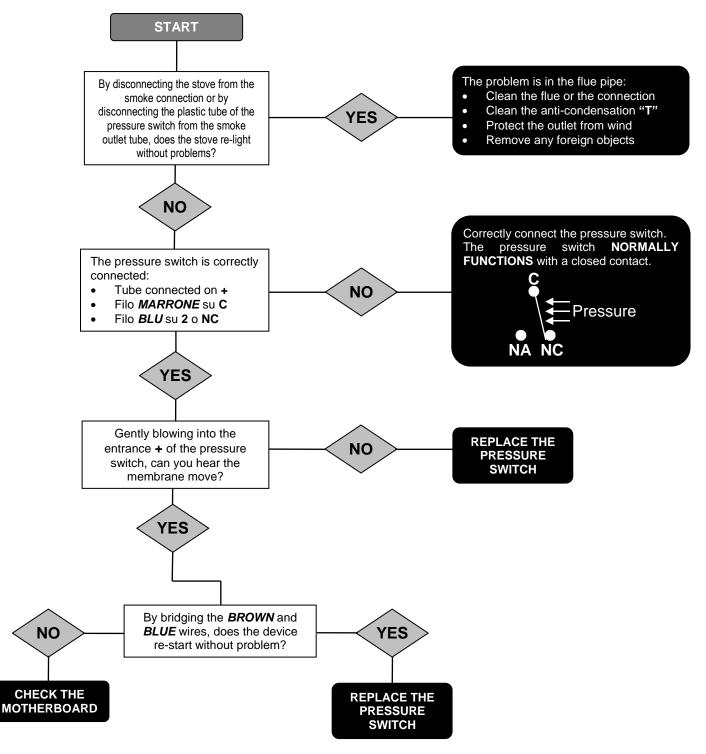
Difficulty in expelling the smoke due to:

- Clogging of the flue pipe
- Presence of a foreign object in the flue pipe (birds, nests, grills, leaves, etc..)
- Wind enters the flue pipe because it is not protected or because an installation was carried out with a wall outlet with flue pipe.
- Descent of cold air from the flue pipe
- Damage of the pressure switch
- Blocking of the internal membrane in the pressure switch because soot entering or ash inside.

CARRY OUT THESE CHECKS, PROCEED WITH THE SUBSEQUENT FAULT DETECTION DIAGRAM



DIAGRAM no. 4 ALARMS: A05 / DEP FAIL / SMOKE DEPRESS



5.3.6. A06 (Only for the ACTIVE SYSTEM devices)

The causes of this alarm are due to the **difficulty by the device in drawing the quantity of combustion air necessary to guarantee a correct combustion**. The correct wording of the alarm is: ERROR IN THE RATIO BETWEEN SMOKE EXHAUST FAN REVOLUTION/MINUTE AND DRAWN LITRE/MINUTE.

By consulting the technical parameters of each device, it is possible to check that for a given speed of the smoke exhaust fan, a given quantity of litres/minute of air must enter and pass through the sensor.

If this does not occur for more than 15 minutes, the device will go into alarm condition.

SERVICE MANUAL



Example: If at **power 4**, in a **SOLAR** stove, the flow sensor must measure **160 It/min**, as minimum intake, the smoke exhaust fan will rotate more or less fast to guarantee this amount of incoming air to the combustion chamber.

Also the smoke fan has a reference value equal to **1,500 rpm**.

In normal conditions of installation and fuel quality, the running values must remain close to these values with a maximum tolerance of **5-10%**.

If the smoke fan must rotate at **1,900 rpm** to ensure the value of **160 lt/min** required by the sensor, this installation condition makes the expulsion of smoke and the inlet of air difficult. Alternatively, the grate is very dirty or the flue pipe is blocked, making the expulsion of smoke difficult.

If the smoke fan at maximum speed (2.500 rpm) is unable to guarantee the value of 160 lt/min required, the device triggers an alarm A06 (abnormal ratio between the number of revolutions of the fan and the flow).

The intervention of this alarm may occur for the following causes:

- Installation non compliant
- Poor quality pellet that tends to clog the grate.
- No air intake in the room.
- Difficulty in drawing combustion air because the product has been installed in a niche or inside an existing fireplace (e.g. PowerBox, PowerSystem) without a sufficient air intake.
- There is a consistent alternative opening, through which the air is drawn, which therefore does not pass by the sensor. E.g.: a cleaning and inspection panel has been closed badly or the hermetically sealed fire door and the gaskets are mediocre.
- The air sensor is dirty and therefore incorrectly detects the number of litres/minute. The sensor is delicate and must not be covered by dust, hair or pollen. For this reason **never use the device without the pollen filter provided**. The sensor **MUST NEVER BE TOUCHED WITH FINGERS OR CLEANED WITH COMPRESSED AIR.** To clean and remove dust, just use a paint bush or something delicate.
- The sensor is damaged and incorrectly detects the number of litres/minute. In this case the sensor is not defective and is correctly powered by the motherboard (otherwise the stove would show alarm **A14**). In any case it is necessary to replace the component. In the case in which after replacing the component, the same problem occurs, the problem is to be found in the first **5 points** above.

5.3.7. A07 (Only for ACTIVE SYSTEM devices)

This alarm, also called "**OPEN DOOR ALARM**", signals that the smoke exhaust fan works correctly but less than 40 litres/minute pass through the air sensor.

The smoke exhaust fan runs at maximum speed but despite this, very little air passes through the sensor. To compensate for this lack, there must be the possibility of drawing a large volume of air from another part but this opening must be very consistent. For this reason, one of the situations in which this alarm intervenes, is when the door is open or ajar without blocking the handle.

The intervention of this alarm therefore may occur for the following causes:

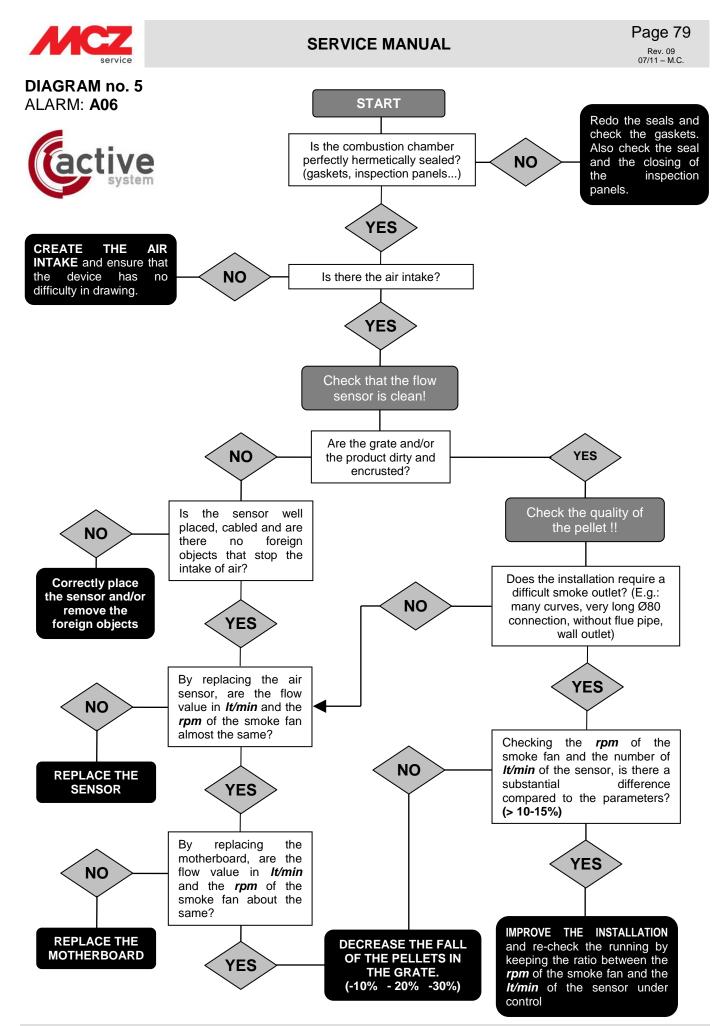
- Door open or ajar
- Impossibility of drawing the air through the Ø 50 mm pipe due to a complete blockage of the same tube. Example: if the intake of air was channelled at the outside, the connecting tube may be choked/squashed.
- All the open inspection panels. On devices such as POLAR, NOVA or ATHOS, the inspection panel of the smoke fan is of a considerable dimension and the failure to install this panel seriously compromises its operation.
- High quantity of dirt on the sensor that makes it almost insensitive.



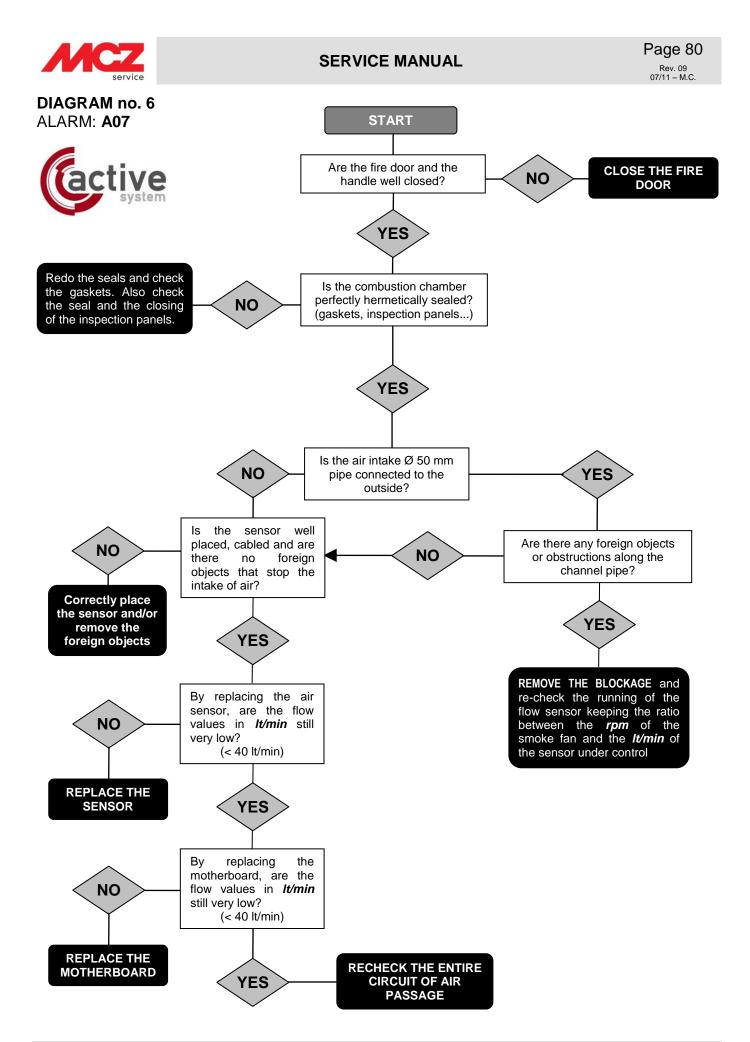
On NEW ACTIVE SYSTEM appliances (Ego-Star-Suite-Club-Musa etc.) alarm A07 was eliminated, combined with alarm A05 and managed entirely by the intake air flow sensor.

This is because the pressure switch was replaced by the flow rate sensor fitted in the \emptyset 50 mm tube on newer appliances. If the air sensor does not detect intake air it automatically detects either difficult exhaust fume evacuation or existence of another opening through which the air taken in by the fume fan may pass (open door).

USE THE SUBSEQUENT DIAGRAMS FOR THE SOLUTION OF THE ALARMS A06 AND A07



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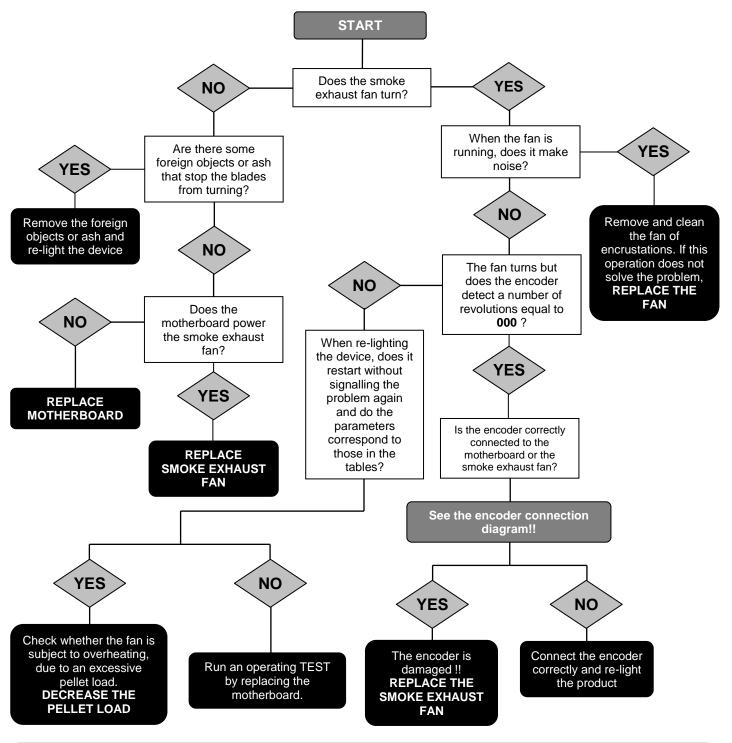


5.3.8. A08 / FAN FAIL / SMOKE FAN

The cause of this alarm is due to the smoke fan not working. This can be proven by checking the number of revolutions/minute detected by the encoder. In the case of the Pellet Box devices, the alarm FAN FAIL or SMOKE FAN also intervenes when the number of revolutions/minute deviates from the values set in the parameters of 10%. The intervention of this alarm may occur for the following causes:

- The smoke extraction fan is defective.
- The encoder is damaged.
- Overheating. The safety probe has intervened due to excessive temperature.
- A foreign object or soot stops the rotation of the blades of the fan.

DIAGRAM no. 7 ALARM: A08 / FAN FAIL / SMOKE FAN





Page 82 Rev. 09 07/11 – M.C.

ENCODER CONNECTION

Concerning the **ACTIVE SYSTEM** devices, there is no possibility of an incorrect wiring since the cable that connects the fan to the motherboard is provided with two connectors that may only be connected in the correct way.

In the **PELLET BOX®** stoves instead it is necessary to carefully check the connection of the 3 cables of the fan encoder, to the motherboard. This connection is carried out on a GREEN4 position terminal also if there are only 3 wires to be wired. The order of the wires is as indicated in figure: starting from the right to arrive at the left of the connector **WHITE - RED – BLACK.**

The last position to the left of the connector MUST remain EMPTY !!!

In the case of HYDRO PELLET BOX® pellet stoves there is a 4th **BROWN** cable that must be cabled in the same terminal. **The BROWN cable must be cabled together** with the **RED cable**. The WHITE - RED – BLACK cables must be cabled as indicated above

Concerning the connection from the motherboard to the smoke fan code 4160234, the encoder is already cabled internally to the fan and therefore no control is necessary.

In the case of the fan code 4160429 or similar, the connection cable is cabled through an already predisposed connector that must be inserted in the suitable terminal on the motor body.

5.3.9. A09 / SOND FUMI / SMOKE SENSOR

The cause of this alarm is due to:

- **90% breakage of the SMOKE SENSOR**. The cause of this fault may simply be of an electrical nature and therefore it is worthwhile, given the importance of this device, to replace the component.
- **10% anomalies in the cabling**. In the cases in which the alarm is not due to the breakage of the component, the responsibility may be due to its incorrect cabling. **Therefore check that the smoke sensor is well connected to the motherboard.**



ATTENTION!

The two cables of the smoke sensor (**BLUE** and **RED**) have polarity (+ and –); thus pay attention that the cables are inserted correctly (see the electrical diagram of the stove on which you are operating)

Concerning the ACTIVE SYSTEM devices, the smoke sensor is provided with a special connector to be inserted in the motherboard, which eliminates the possibility of making mistakes. Concerning the PELLET BOX stove, the smoke sensor is directly cabled in the motherboard and potentially there may be a wiring defect.

To test the correct operation of the smoke sensor, view the temperature on the display of the device.

5.3.10. A10 (Only for ACTIVE SYSTEM devices)

This alarm signals that **THE SPARKPLUG DOES NOT WORK**. The motherboard detects the component's failure to absorb power and signals the fault.

Proceed to the replacement of the sparkplug after a short control test is carried out with an electric tester.

5.3.11. A11 (Only for ACTIVE SYSTEM devices)

This alarm signals that **THE REDUCTION MOTOR DOES NOT WORK**. The motherboard detects the component's failure to absorb power and signals the fault.

Proceed to the replacement of the reduction motor after a short control test is carried out with an electric tester.

5.3.12. A12 (Only for ACTIVE SYSTEM devices)

This alarm signals that the remote control is out of the range of the device for more than 3 hours.



The device does not stop, as it is the case with all the other alarms, but only communicates to the user that it is no longer able to manage the temperature or the other CRONO, ECO-STOP or SLEEP commands since the remote control is out of range.

To solve the problem it should be sufficient to move the remote control nearer to device, press a button and give any command. In this way the alarm should disappear automatically (30 seconds)

The alarm A12 is the only one that does not need to be cancelled from the emergency panel and that does not turn off the device but makes it work in the same mode set by the last command received from the remote control.

The causes of this alarm may be:

- The user has moved the remote control more than 5 metres from the device.
- The batteries are almost dead (battery low symbol on the display of the remote control) and the remote control does not have sufficient energy to communicate with the receiver.
- The remote control is turned off due to dead batteries.
- Loss of transmission frequency (See paragraph 4.5.5.
- The antenna of the internal receiver is bent or broken.
- The onboard receiver of the device is damaged: the remote control does not manage to send the running information to the device.

5.3.13. A13 (Only for ACTIVE SYSTEM devices)

The alarm A13 identifies a generic communication problem between the motherboard and the other components of the device.

The motherboard is able to carry out the diagnosis on the components and on itself, in the moment when the communication is interrupted with the various elements (reduction motor, sensors, fans, etc..). In the case of parts such as the reduction motor or the sparkplug, the motherboard communicates a specific alarm (A10, A11, etc..); in other cases, instead, the fault has a more complex and generic nature and for this reason alarm **A13** exists. The clearest example of the complex nature of the fault may be identified with the electromagnetic interference at the level of the wiring.



A13 DOES NOT MEAN THAT THE MOTHERBOARD IS BROKEN AND CERTAINTY NEEDS TO BE

REPLACED but it is necessary to check the presence of possible communication problems. Sometimes the replacement has positive effects only because of the disconnection and reconnection of the flat cable, and the connection problem is solved.

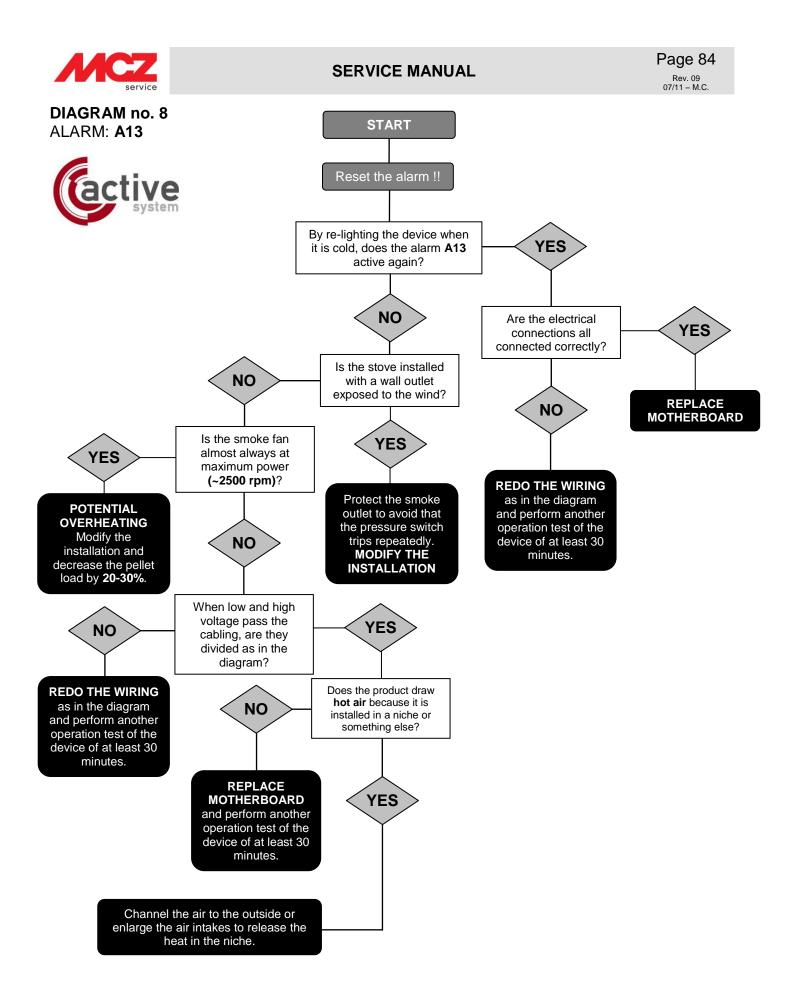
The causes of this alarm may be:

- Defective motherboard.
- The motherboard cannot suitably communicate with the other components, due to electromagnetic interference that is created between the cables where the high voltage passes (220 Volt cables that power the fans, the sparkplug, the reduction motor) and the low voltage cables (12 or 5 Volts: flat cables, cable of the smoke sensor, encoder, command/receiver panel). In this case it is necessary to rewire the device's electric system, paying attention not to strap together the two types of cables (especially those of the encoder and receiver)
- Overheating of a component that functions abnormally and therefore does not suitably respond to the motherboard. The components that may potentially produce this type of fault are the smoke extraction fan and the flow sensor.

These cases can easily occur since, with the device cold, the latter lights without signalling the alarm any more, given that the running temperatures have returned to normal.

The nature of the overheating may be due to:

- The smoke exhaust fan always turns at maximum power (2500 rpm) because it is extremely stressed by an abnormal combustion. The cause of the alarm A13 is therefore the smoke fan, even if it is not directly responsible. It is necessary to check the combustion or, for safety, significantly decrease the quantity of pellets entering the combustion chamber (-20% or 30%)
- The air sensor works at temperatures exceeding those advised (55°C) since the product is connected to the inside of a niche or something else. The sensor working a high temperatures, incorrectly communicates with the motherboard that is blocked in alarm A13.
- The pressure switch may be another cause of alarm when it repeatedly and quickly trips due to a gust of wind from the outside. The repeated and sudden electrical signals transmitted to the motherboard communicate an external problem and thus alarm A13 activates. In this case the cause is external but it is **FUNDAMENTAL TO MODIFY THE INSTALLATION** to protect the pressure switch and solve the problem.



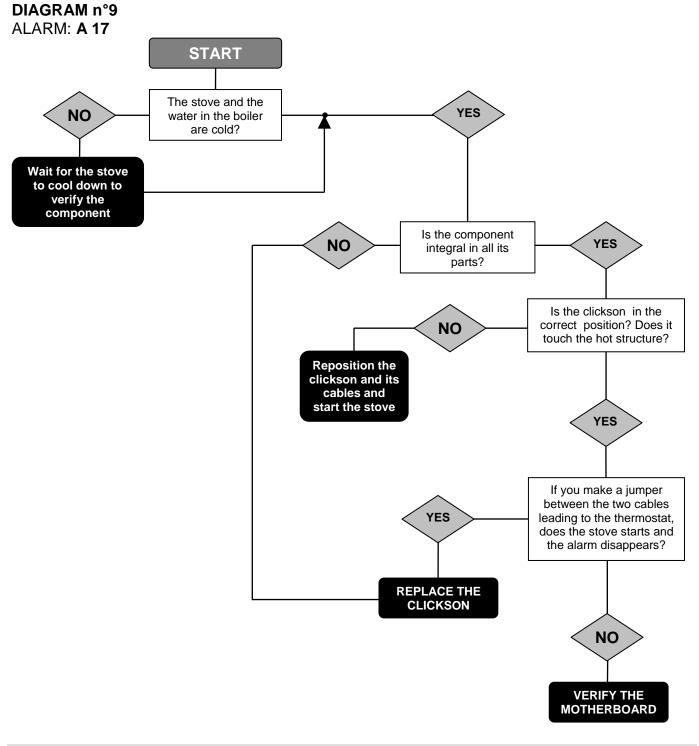


5.3.14. A14 (Only for ACTIVE SYSTEM devices)

This alarm signals that **THE AIR FLOW SENSOR DOES NOT WORK**. The motherboard detects the lack of dialogue and exchange of information by the component and signals the problem. It is advisable to:

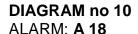
- Check the electric connection and if defective restore it.
- Check that the sensor has not been inserted twisted. as it has its own position to carry out the detections when it is hit by the air flow.
- In case of doubt replace the component, given the importance that it holds in the correct management of the combustion in the ACTIVE SYSTEM devices.

5.3.15. A17 (Only for ACTIVE SYSTEM devices)

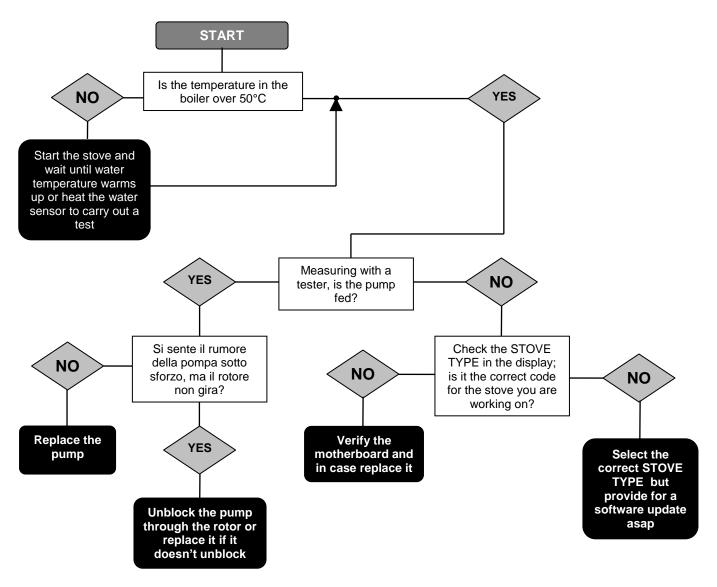




5.3.16. A18 (Only for ACTIVE SYSTEM devices)



ALARIVI: A 18



5.3.17. A19 (KAIKA OYSTER appliances only)

This alarm indicates that the pellet tank lid was kept open for longer than 1 minute, thus for too long. The appliance may not be perfectly sealed with respect to the installation environment.

The alarm is tripped by a simple button which remains constantly pressed when the tank lid is closed correctly and perfectly adheres to the magnets withholding it onto the pellet tank seals.

Faults to this alarm may be due to:

- the pellet tank lid is open or not closed correctly (i.e. correct closing of the lid may not be possible because the tank has been overloaded or a pellet has got caught between lid and structure)
- faulty button
- button fixed incorrectly to the structure and is not consequently actuated by the pellet tank lid
- electric wiring not connected correctly or damaged in any point, and electric continuity is interrupted as a consequence.



DIAGRAM no. 9

5.3.18. Alarm PRES H2O

The cause of this alarm is due to lacking or excessive pressure in the hydraulic system. The alarm **PRES H2O** activates when the pressure is **lower than 0.5 bar** or **higher than 2.5 bar**.

ALARM: PRES H2O START By pressing and keeping pressed YES the button 3, is the pressure of NO the system within (> 0.5 bar and < 2.5 bar) ? Is the wiring to the motherboard NO correctly Is there another connected and pressure gauge along carried out? YES NO the system to compare the pressure? Restore the wiring as YES in the electric diagram. Take the pressure to 1.0 bar when cold or 1.5 bar when hot by reintegrating Is the pressure detected by the pressure gauge YES similar to the one or discharging the Run an operating detected by the stove? system TEST by replacing the motherboard. Is the problem solved by rechecking the pressure NO NO and/or re-lighting the stove? Is the transducer YES obstructed? (control the water entrance hole) YES NO Clean and refit the transducer and Problem linked to the system. restore the pressure in the system. Check that there are no leaks along the If the transducer still does not read system and that the expansion tank is working REPLACE the pressure, **REPLACE IT.** correctly TRANSDUCER

5.4. The most common generic problems and the solutions.

5.4.1. Display PELLET BOX that is turned on or off or illustrates incomprehensible symbols.

This problem frequently occurs in stoves that include the control display, fitted **on the cover of the pellet hopper**.

The display is connected to the motherboard through a "flat cable", i.e. a very thin and flexible cable with 16 poles. With time, the heat and the frequent opening and closing of the cover, this electric cable may be damaged and not power the display correctly.

In certain cases the bad contacts procured by the damaged cable also cause false information to be communicated (alarm type or impossible temperatures). **Solutions:**

- Replace the flat cable.
- After replacing the cable, if necessary check if the display has suffered damage caused by bad electric contacts produced by the cable.

5.4.2. Reception difficulty of the ACTIVE remote control and no automatic function.

This problem is caused by **electromagnetic interference** in the environment of installation (other WI-FI radio, internet networks, cord-less telephones), that may disturb the receiver installed on the stove. **Solutions:**

- The first control to do is to check the position of the antenna of the receiver. Its position (antenna pointed to high) is important for a good reception of the radio signals coming from the remote control. In more difficult cases, we advise making the antenna come out of the receiver, to the exterior of the structure of the device.
- This problem may also be due to interference generated internally in the product, in the case in which the cables where 220 Volt pass (air and smoke fans, capacitors, etc..) are wired together or close to cables where 12Volt pass (encoder, flat cables, smoke sensor). Therefore separate all the cables, especially keeping the cable of the encoder, the flat cable that connects the motherboard to the emergency panel and the receiver and finally the cable of the smoke sensor, insulated from all the others.
- Replace the emergency panel with a newer one (cod. 414509003) that has a higher interference filter.

5.4.3. Fast appearance of ON-OFF on the emergency panel.

The problem is closely correlated to the phenomenon of electromagnetic interference and, though not causing any operational problem (the product works without any problem by ignoring this signal), it may worry the user who sees this signal appear on the display of the emergency panel.

Solutions:

- Divide the "high voltage" cables from the "low voltage" ones (especially the flat connection cable of the emergency panel) following the specifications illustrated above.
- Replace the emergency panel with a newer one (cod. 414509003) that has a higher interference filter.

5.4.4. Appearance of the PELLET alarm with the hopper full.

This problem is closely correlated to the electromagnetic interference at the electrical wiring level that causes the incorrect signalling of the sensor. It is instantly obvious that this type of alarm is false, since the device is blocked immediately without waiting for the appropriate 20 minutes of pre-alarm that warn the user of the effective lack of fuel.

Solutions:

- Adjust the sensor by using the screw placed at the rear of the same sensor. By turning the screw, a small
 green LED placed next to it will turn on or off, depending on whether the sensor detects the pellet in the
 hopper or not (ON = presence of pellets / OFF = hopper empty)
- Divide the "high voltage" cables from the "low voltage" ones (especially the sensor cable)
- Given the difficulty in carrying out the calibration or in avoiding the problems linked to interference, MCZ advises completely eliminating the sensor. Deactivate the sensor via software and disconnect its wiring.



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6. SCHEDULED MAINTENANCE.

6.1. What and when ?

At the basis of a good working of a pellet stove, periodical maintenance must be carried out that controls the efficiency and the cleaning of the individual components, replaces the parts subject to wear (gaskets, deflectors, etc..), and eliminates all the ash residues and encrustation from the exchange chamber.

Components to check	Daily	Every 2-3 days	Every 30 days	Every 60- 90 days	Every end of season	Every 2 seasons
Clean the grate	$\mathbf{\overline{\mathbf{A}}}$					
Clean the ash collection compartment with a vacuum cleaner						
Cleaning the ash drawer		\checkmark				
Clean the fire door glass		\checkmark				
Remove the ash from the lower heat exchanger.				A		
Clean all the heat exchangers and remove ash and encrustations						
Clean the discharge "T"			\checkmark			
Clean the smoke connection				V		
Control and replace the door seal						\checkmark
Control and replace the ignition plug						$\mathbf{\overline{\mathbf{A}}}$
Control and clean the pollen filter (ACTIVE SYSTEM)			\checkmark			
Replace the remote control batteries (especially for ACTIVE stoves)					\checkmark	

6.2. How ?

REMOVAL AND CONTROL OF THE CERAMICS

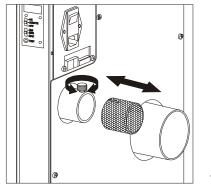
- Remove the ceramics of the stove and place them in a safe place away from the product to avoid them breaking
- Check whether there are cracks or breakages (inform the customer in advance if defects were found)

DISCONNECTION FROM THE FLUE PIPE

- Disconnect the stove from the flue pipe
- Clean with a brush or with the vacuum cleaner the anti-condensation "T" connection
- Clean the smoke connection



CHECK THE POLLEN FILTER (only for ACTIVE SYSTEM stoves)



Remove the pollen filter by unscrewing the blocking screw and delicately clean it with a dry brush or compressed air.

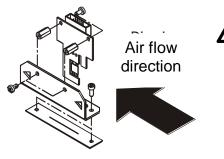
Pay attention not to deform the filter and check the integrity of the metal mesh. The filter must be refitted in a way that the slot corresponds with the blocking screws. The filter, once fitted, must protrude externally from the tube by about 5-6 cm. If the filter is broken or deformed, <u>it must</u> be replaced. The pollen filter has the code 4120889 and costs \in 10.00+VAT in the price list



Any damage to the components caused by the lack of this component is on the account of the user or the person who neglected to fit this component.

CLEANING THE COMBUSTION AIR FLOW SENSOR (only for ACTIVE SYSTEM stoves)

In the Ø 50 mm air intake pipe at about half its length, the sensor is placed that detects the flow of incoming combustion air.



Pay attention when moving this device since it is very delicate; especially the part of the sensor.

DO NOT TOUCH IT WITH YOUR FINGERS.

DO NOT BEND THE ELECTRICAL CONNECTORS. PRIOR TO LOOSENING THE SENSOR PAY ATTENTION TO THE SIDE IN WHICH IT IS INSERTED.

NOTE: There is an arrow in the sensor that indicates the direction of the flow of air

To loosen the board containing the sensor, loosen the screws that block it and extract it putting pressure from the top downwards (see figure)

Clean delicately at the level of the sensor with a dry and clean brush.

CLEANING THE EXCHANGE CHAMBER

- As usual open the inspection panels starting from the upper ones and with a brush and/or an wire brush scrape all the walls of the exchange chambers in a way that all the soot falls in the lower ash pit.
- Open the lower inspection panel and remove all the soot with the vacuum cleaner perhaps with the aid of a brush or a thin attachment for the cleaning.
- Once the inspection panels are removed, before closing them, replace the seal gaskets of the same panels to guarantee a perfect adherence and seal.

CLEANING THE VOLUTE AND THE SMOKE FAN

After cleaning the lower exchange chamber that often coincides with the smoke fan compartment, assess whether it is necessary to clean the volute and/or the smoke fan.

The volute, for its conformation, has dark corners whose cleaning requires the removal of the smoke fan. The smoke fan is cleaned with a dry brush or a small brush in order to remove the soot and encrustations.

ATTENTION

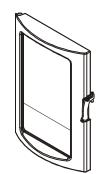


Once the smoke fan or the volute is removed, it is <u>compulsory</u> to replace all the seals and redo any silicon.

The volute must be perfectly airtight. Pay attention not to act with too much force on the blades since if these twist or the blade become unbalanced, the fan will vibrate when running normally.



CHECK THE SEAL OF THE FIRE DOOR



The seal of the fire door is very important for the correct running of the stove. If this makes air draw, the stove completely changes its operating power given that the air sensor must require a greater quantity of oxygen to balance the combustion.

To check the seal, place the sheet of paper between the fire door and the structure. Close the door and try to remove the sheet of paper. If it easily comes away it is necessary to adjust or replace the seal; if instead it remains blocked the seal is still integral.

Alternatively it is possible to adjust the handle by unscrewing the eccentric bush and re-setting it, checking that the handle is more solid. Redo the test with the sheet of paper until it does not come away at any point.

CLEANING AND CHECKING THE COMBUSTION CHAMBER.

- Clean the entire combustion chamber of ash built up during winter again
- Empty the ash drawers and all the collection compartments, also below the grate.
- Check that the combustion air intake point (below the grate) is free and clean.
- If deemed necessary, remove the refractory interiors to also remove the ash built up behind these components.
- Carefully clean the grate and check the integrity.
- Any <u>small</u> deformations in the grate can be repaired with pliers or a hammer.
- If the grate has large deformations it is necessary to replace it.

CLEANING THE DEFLECTORS IN THE COMBUSTION CHAMBER.

- On some models there are deflectors that must ABSOLUTELY be removed and carefully cleaned.
- In the case of perforated deflectors (see Vega model) the deflectors are to be brushed in a way that all the holes are free and clean.
- In case of fixed deflectors (See Polar/Nova model) they must be removed, cleaned and put back.
- In case there are deflectors in "Calorite" (old Polar/Nova Air-Multi models), they are to be eliminated and no longer refitted.

CHECKING THE PRESSURE SWITCH

- Check that the silicon tube that connects the pressure switch to the volute is integral and clean.
- Check that the pressure switch trips if you blow into the silicon tube.

CHECKING THE SPARKPLUG

- Try to light the stove and check that the sparkplug heats up.
- If the sparkplug has been working for more than a few months, it is likely that the point will not become hot but this does not mean that the sparkplug is inefficient.

RECONNECTING THE FLUE PIPE

Prior to removing the connection to the flue pipe:

- Check the cleanliness in all the parts
- Check that the smoke outlet pipe of the stove is free and clean.
- Check the cleanliness of the "T"

TEST LIGHTING



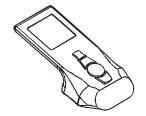
- It is compulsory to carry out a test lighting to check whether everything is perfectly functional or there are problems following cleaning.
- For the purpose of this test clean the combustion chamber of residues again.

CLEANING THE PELLET HOPPER AND THE FEED SCREW

- Remove the entire pellet from the hopper with a vacuum cleaner and subsequently remove the shaft of the feed screw in order to eliminate all the sawdust.
- Clean the shaft of the feed screw and grease the two tips with a little high temperature fat
- Clean the pellet feeder channel with a brush.
- Clean the two bushes and grease them with high temperature fat
- Refit the feed screw and check that the rotation is fluid making it turn by hand.



LCD REMOTE CONTROL



At the end of the season there is no reason to keep the remote control active.

- Check that the LCD display is integral.
- Remove the batteries that may damage the remote control with their acids after long inactivity.
- Advise the customer to insert new batteries at the beginning of each new season

SHUTTING THE STOVE DOWN

- Once all the reinstallation operations are completed, cut the power to the stove with the rear button
- Remove the electrical cable
- Remove the ceramics and clean their exterior with a damp cloth.

6.3. Why?

Suitable and planned cleaning of the device allows a better efficiency and especially a better operation.

The ash builds up inside the exchange chambers, act as thermal insulation and decreases the heating capacity of the product. A part from the heat, unable to be absorbed by the structure, leaves the flue pipe or remains trapped in the same structure that has excessive running temperatures.

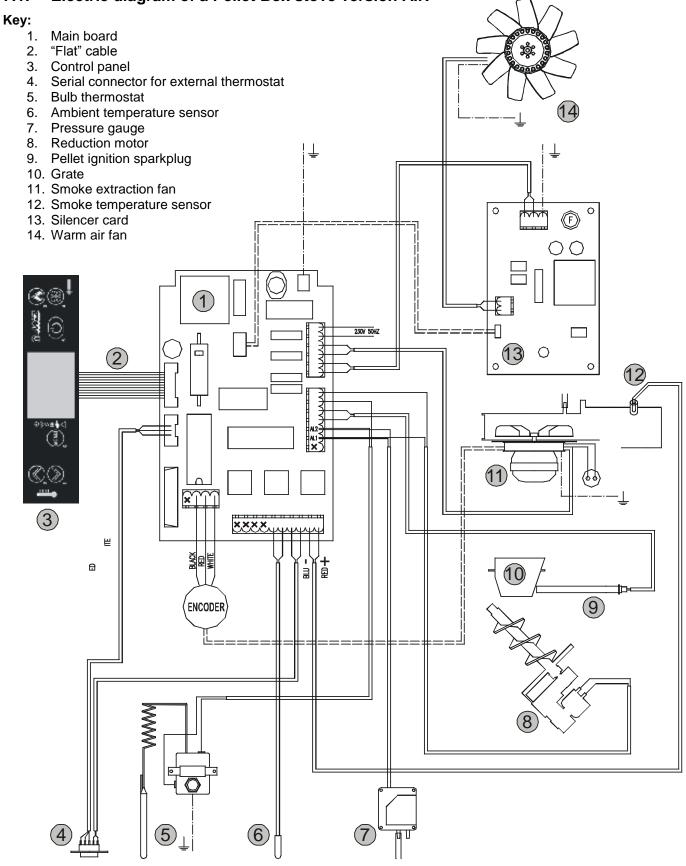
The lack of cleaning also causes frequent combustion and fuel clogging problems in the grate and large difficulties in calibrating the recipe.

The glass and the combustion chamber (Alutec[®]) will frequently get dirty or blackened and the deposits of ash will increase notably.



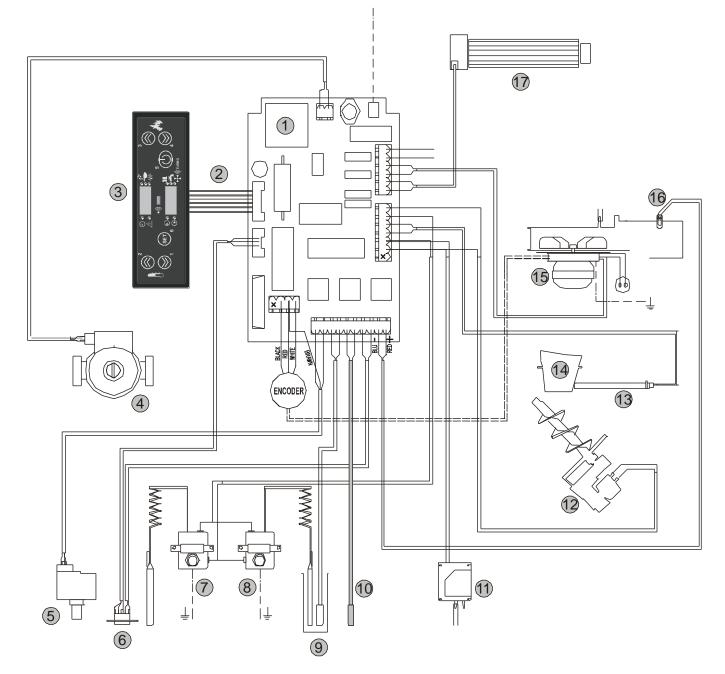
7. ELECTRICAL DIAGRAMS

7.1. Electric diagram of a Pellet Box stove version AIR





7.2. Electric diagram of a Pellet Box stove version HYDRO without KIT ACS



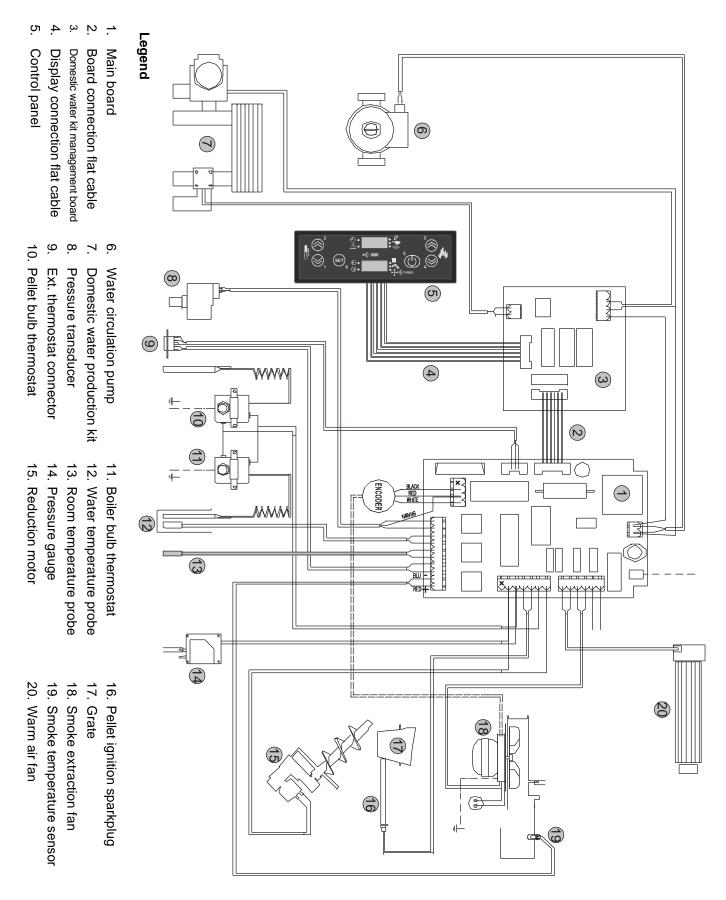
Legend

- 1. Main board
- 2. Flat cable connection control panel
- 3. Control panel
- 4. Water circulation pump
- 5. Pressure transducer
- 6. Serial connector for external thermostat
- 7. Bulb thermostat for the safety pellet hopper (can also be replaced with clickson)
- 8. Bulb thermostat for the water safety

- 9. Water in boiler temperature probe
- 10. Room temperature probe
- 11. Pressure gauge
- 12. Reduction motor
- 13. Pellet lighting Sparkplug
- 14. Grate
- 15. Smoke exhaust fan
- 16. Smoke sensor
- 17. Hot air fan.



7.3. Electric diagram of a Pellet Box stove version HYDRO with KIT ACS





Cod. 41450907601

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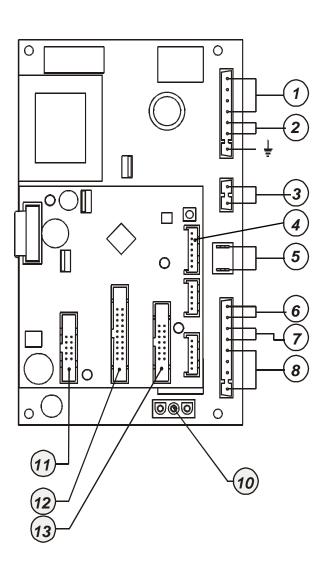
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7.4. Electrical diagram of an ACTIVE SYSTEM device

Cod. 41450902300



- 1. Pellet ignition sparkplug
- 2. Main switch that provides voltage to the motherboard.
- 3. Hot air expulsion fan
- 4. Smoke temperature measurement probe
- 5. Smoke expulsion fan power cable
- 6. Bulb thermostat / Clickson
- 7. Pressure gauge
- 8. Reduction motor
- 9. ENCODER white connector of the smoke expulsion fan.
- 10. Air flow sensor
- 11. Services interface panel
- 12. Emergency panel
- 13. Old model RF receiver connector (blue) (now unused following the introduction of the emergency panel with an integrated receiver).

1. Control panel

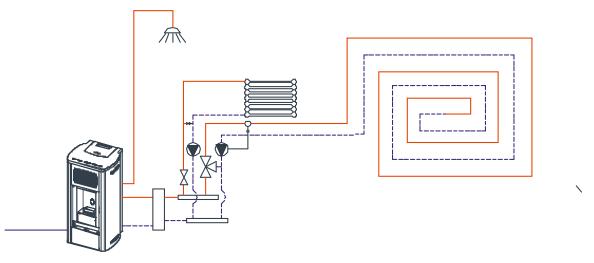
- 2. Room sensor
- 3. Smoke sensor
- Modem connection
 Switch
- Switch
 Ignition plug
- 7. Flue-gas extractor fan
- 8. Reduction motor
- 9. Contact thermostat
- 10. 1Air fan
- 11. 1Flue-gas extractor fan revolutions control
- 12. Air flow sensor
- 13. Manifold for environment thermostat interface

N.B. The electrical wiring of the single components is fitted with pre-wired connectors whose measurement is different from one another in order to avoid inverting the wires or assembly mistakes.

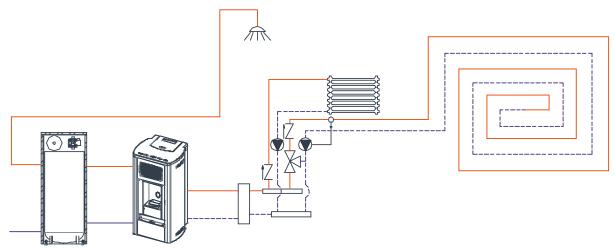


8. EXAMPLES OF HYDRAULIC DIAGRAMS (examples only)

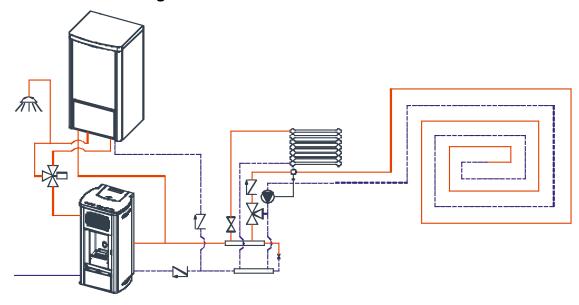
8.1. Pellet stove/boiler + ACS



8.2. Pellet stove/boiler + ACS + storage tank

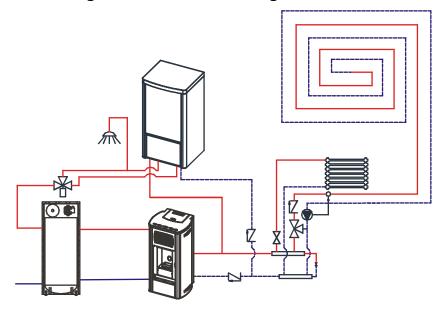


8.3. Pellet stove/boiler + gas/diesel boiler

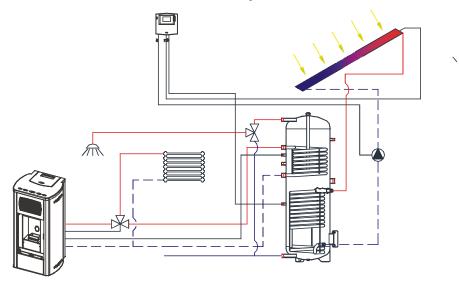




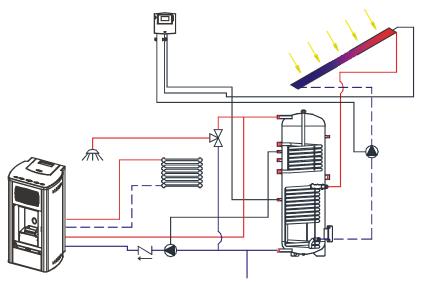
8.4. Pellet stove/boiler + gas/diesel boiler + storage tank + ACS



8.5. Pellet stove/boiler + ACS boiler + solar system

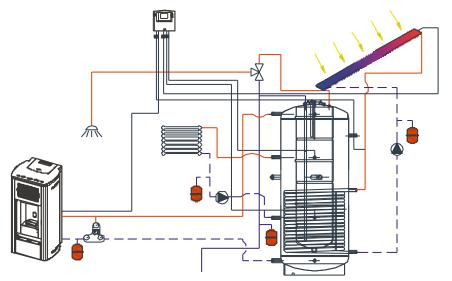


8.6. Pellet stove/boiler + ACS + ACS boiler + solar system

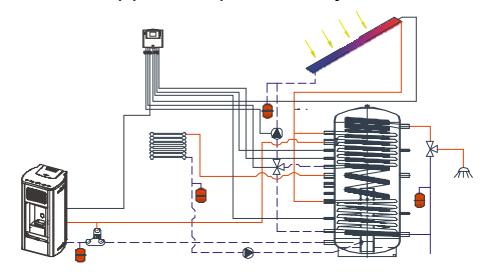




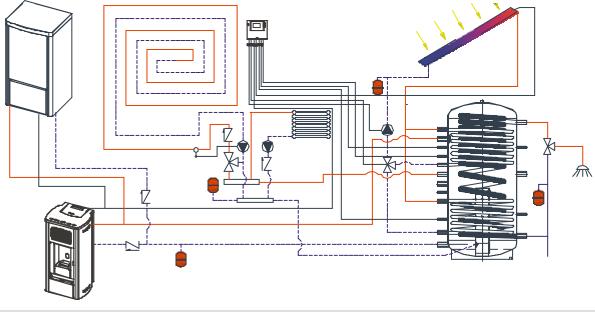
8.7. Pellet stove/boiler + "tank in tank" puffer + solar system



8.8. Pellet stove/boiler + "pipe in tank" puffer + solar system

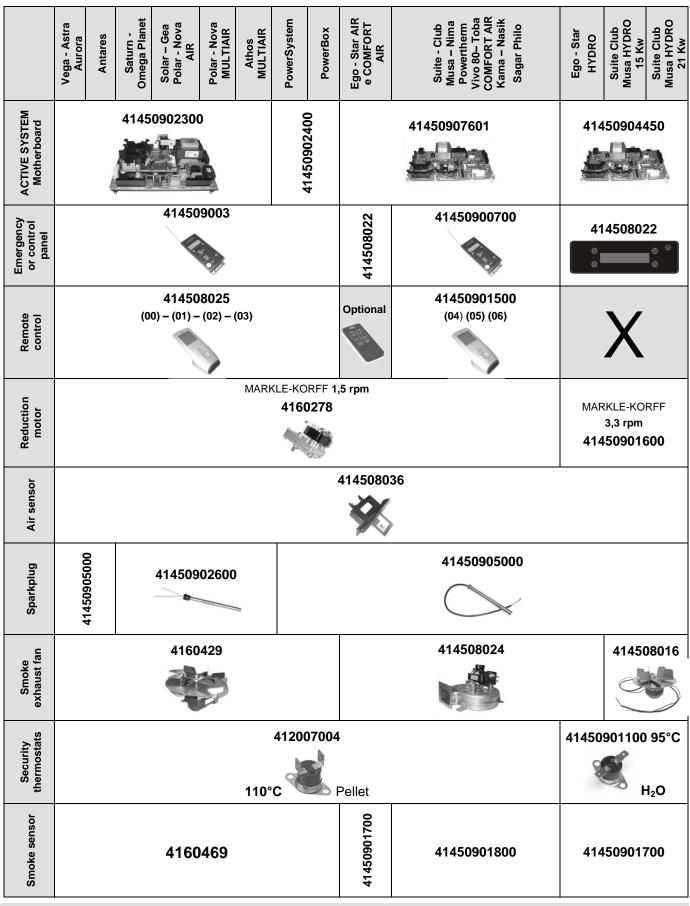


8.9. Pellet stove/boiler + gas/diesel boiler + "pipe in tank" puffer + solar system





9. ACTIVE PRODUCTS AND RELATED ELECTROMECHANICAL COMPONENTS



Service Manual - cod. 89070072 - UK



10. "EASY" PRODUCTS AND RELATED ELECTROMECHANICAL COMPONENTS

Motherboard	Face Kaika 41451001200	Kaika OYSTER					
board	41451001200	44 454 000000					
boai		41451003000					
Mother							
_	41450907900						
Control panel							
stat		41451003700					
Pressostat	Х						
Ę	4160278						
Reduction motor							
e	41450907800	41451001701					
Hot air fan							
- 6nj	41450902600						
Sparkplug							
t fan	414508024	41451003200					
Smok exhaust							
ty tats	412007004						
Security thermostats	110°C						
L L	4160386						
temperature sensor	\bigcirc						
	4160)239					
Smoke sensor	\bigcirc						



SERVICE MANUAL

NOTES



SERVICE MANUAL

NOTES

..... For additional information:

<u>www.mcz.it</u> <u>mczservice@mcz.it</u>



www.mcz.it



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