

## PARAMETERS POP STAR 6/10 KW

### MOTOREDUCER 1.3 RPM PANEL BOARD M16

Updated 10/03/2021

**ATTENTION:** the version of the software that is prepared for the management of the iControl Wi-Fi module and the Room Control device can be recognised in this way: When the machine is powered up, the **THERMOROSSI** logo is displayed with an identification sign "**iControl Line**" to distinguish it from previous software versions.



To enter the parameter list, press the two buttons **Plus** and **Minus** together for 3 seconds, until the writing **INFO** appears; press in sequence: **ventilation button, clock button, flame button, minus button and plus button.**

The writing **LCD VER.** appears, then press again the two **Plus** and **Minus buttons** for 3 seconds to enter the parameters below.

To confirm and scroll, press the **Flame button**, to exit/quit press the **M button**.

	6 KW	10KW	
SELECT POWER 0/1	1	0	Set to 0= 10 KW of Total power, set to 1= 6 KW of Total power (details at page 2)
1=ENABLE I/O TEST	0	0	Set to 1, it enables the function of components test (details at page 4)
1=NO SMOKE ENCODER	0	0	Set to 0 the smoke fan encoder is enabled
1=NO SMOKE SENSOR	0	0	Set to 0 the smoke thermocouple is enabled
1=NO AUTOSET 50-60 HZ	0	0	Set to 0 automatically sets the input frequency
0=50 HZ / 1= 60 HZ	0	0	Power supply frequency type selection (only if the previous parameter is set to 0)
SMOKE FAN MODUL DELAY	8	8	Adjustable time (sec) for the passage from one speed to the other of the smoke extractor fan
1=DISABLE WAIT WORK	1	1	Set to 0 it enables the waiting for the 'work' status before the machine can be switched off
1=DIS EXT CHRONO LIMIT	0	0	Set to 0 it enables the security functions of the contact EXT (details at page 2)
TEMP.ANTICONDENS.	135	135	Room fan activation temperature (details at page 3)
HYST.ANTICONDENS	5	5	Hysteresis of the anticondensation function (details at page 3)
SMOKE0=PF, 1=PWM 2=IM	0	0	Smoke fan supply mode PF= phase partialisation Pwm=pulse with modulation IM=pulse
V. AMB MODE (1=PWM)	0	0	Setting the type of power supply of the room fan, set to 0 supplies the fan in phase angle - to 1 in PWM
V. AMB. 50 HZ 1	1300	1300	Speed of the room fan in power 1 (rpm)
V. AMB. 50 HZ 2	1500	1500	Speed of the room fan in power 2 (rpm)
V. AMB. 50 HZ 3	1650	1650	Speed of the room fan in power 3 (rpm)
V. AMB. 50 HZ 4	1950	1950	Speed of the room fan in power 4 (rpm)
V. AMB. 50 HZ 5	2300	2300	Speed of the room fan in power 5 (rpm)
V. AMB. 50 HZ 6	2600	2600	Speed of the room fan in power 6 (rpm)
VEL. LAV.	2600	2600	Speed of the smoke fan during the 1st minute in the ignition phase (rpm)
VEL. ACC.	1500	1500	Speed of the smoke fan in the starting phase (rpm)
VEL. 1	1500	1500	Speed of the smoke extractor in power 1 (rpm)
VEL. 2	1600	1700	Speed of the smoke extractor in power 2 (rpm)
VEL. 3	1800	1900	Speed of the smoke extractor in power 3 (rpm)
VEL. 4	2000	2100	Speed of the smoke extractor in power 4 (rpm)
VEL. 5	2100	2300	Speed of the smoke extractor in power 5 (rpm)
VEL. STOP	2400	2400	Smoke extractor speed off phase (rpm)

<b>ON ACC.</b>	<b>0.7</b>	<b>0.7</b>	Screw loading time during ignition (sec)
<b>ON 1</b>	<b>0.8</b>	<b>0.8</b>	Screw loading time at power 1 (sec)
<b>ON 2</b>	<b>1.1</b>	<b>1.3</b>	Screw loading time at power 2 (sec)
<b>ON 3</b>	<b>1.4</b>	<b>1.8</b>	Screw loading time at power 3 (sec)
<b>ON 4</b>	<b>1.7</b>	<b>2.4</b>	Screw loading time at power 4 (sec)
<b>ON 5</b>	<b>2.0</b>	<b>3.0</b>	Screw loading time at power 5 (sec)
<b>VEL. PID KP</b>	<b>10</b>	<b>10</b>	<b>DON'T TOUCH</b>
<b>VEL. PID KI</b>	<b>450</b>	<b>450</b>	<b>DON'T TOUCH</b>
<b>ON+OFF PERIOD</b>	<b>4</b>	<b>4</b>	<b>DON'T TOUCH</b> –on/off period of the feeder
<b>TEMP. AL. AC.</b>	<b>45</b>	<b>45</b>	Over this smoke temperature in the starting phase the room fan starts and after 20 minutes the stove enters the working phase
<b>TEMP. AL. PE.</b>	<b>45</b>	<b>45</b>	If the smoke temperature goes under this temperature in the working phase the stove shows the error code <b>NO PELLETS</b> .
<b>TIME ACC.</b>	<b>20</b>	<b>20</b>	Time of the starting phase (min)
<b>TIME OFF</b>	<b>20</b>	<b>20</b>	Time of the off phase (min)
<b>TEMP AMBIENT</b>	<b>22</b>	<b>22</b>	Pre-set target temperature in Room Control function (°C)
<b>T AMBIENT SW. HYST.</b>	<b>2</b>	<b>2</b>	Hysteresis in the switching cycle of the Room Control function (°C)
<b>T AMBIENT ECO HYST.</b>	<b>2.5</b>	<b>2.5</b>	Hysteresis in the switching cycle of the Room Control function
<b>1=NO PAL. WORK</b>	<b>0</b>	<b>0</b>	Set to 1 disable pellet power in work function (only for compatible models)
<b>PAL. ON</b>	<b>2</b>	<b>2</b>	Pellet power in work time (sec) (only for compatible models)
<b>PAL. OFF</b>	<b>60</b>	<b>60</b>	Pause operation pellet power in work (sec) (only for compatible models)
<b>PAL DELAY</b>	<b>30</b>	<b>30</b>	Pellet power start delay time in off (sec) (only for compatible models)
<b>ENABLE NATURAL</b>	<b>1</b>	<b>1</b>	Set to 1 enable the natural function (only for compatible models)
<b>TANK SAFETY</b>	<b>75</b>	<b>75</b>	Temperature value read by the pt100 natural probe at which room ventilation outside the natural cycle (manual ventilation) starts at maximum only if the ENABLE NATURAL parameter is set to 1
<b>NATURAL 1</b>	<b>70</b>	<b>70</b>	Activation limit for room fan first speed in natural function
<b>NATURAL 2</b>	<b>75</b>	<b>75</b>	Activation limit for room fan second speed in natural function
<b>NATURAL 3</b>	<b>80</b>	<b>80</b>	Activation limit for room fan third speed in natural function
<b>NATURAL 4</b>	<b>85</b>	<b>85</b>	Activation limit for room fan fourth speed in natural function
<b>NATURAL 5</b>	<b>88</b>	<b>88</b>	Activation limit for room fan fifth speed in natural function
<b>NATURAL 6</b>	<b>92</b>	<b>92</b>	Activation limit for room fan sixth speed in natural function

#### EXT CHRONO LIMIT:

- It is impossible for an external chrono-thermostat (CHRONOTHERMOSTAT/MODEM contact pin 9-10 CN7) to interrupt a Start phase.
  - It is impossible for an external chrono-thermostat to perform a further switch-on while the machine is in Start mode.
  - It is impossible for an external Chrono-thermostat to perform an ignition if the Off cycle is not finished before the burner cleaning
- It is impossible for an external chrono-thermostat to switch on if the fumes are still hot above the set threshold of the parameter (TEMP. AL. PE.)

#### SELECT POWER

This sub-menu allows you to set two different parameter lists that make the machine deliver 2 different powers. Parameter 0 provides for the machine to deliver 10 KW and parameter 1 provides for the machine to deliver 6 KW. By default the machine exits with the parameter set to 0.

To adjust parameter 1 and then set the power of 6 KW, follow the procedure below:

- position on the Select Power parameter that appears at the beginning of the parameter list
- press the "up arrow button" once so that the word "change Power 1"
- at this point press the "M key" twice in order to return to the main screen
- the 6 KW parameter list is then set.

If we return to the parameter list we can scroll through all the parameters

If, on the other hand, we want to go back to list 0 we have to position ourselves again on the Select Power parameter and then:

- press the "**down arrow key**" once so that "change Power 0"
- at this point press the "**M button**" twice in order to go back to the main screen
- the 10 KW parameter list is then set.

## ANTICONDENS FUNCTION

This function is activated with the following procedure:

From the main screen, press the **M** key several times until a blank black screen appears (a dot may appear in the blank screen which disappears after a second and a blank screen remains).

Now press the following keys one at a time in sequence:

**FAN, CLOCK, FLAME, MINUS, PLUS.**

The word **PELLET** will appear.

Press the **FAN** key twice and **ANTICONDENS OFF** will appear, pressing the **PLUS** key once will switch to **ANTICONDENS ON**. Now press the **M** button and exit. The function is then activated.

If the function is ON, the machine's operating cycle changes as explained below:

If the smoke temperature is lower than 135°C (parameter **TEMP. ANTICONDENS.** which can be set from 80 to 140), and the machine is not set in natural cycle, the room fan does not activate until the set smoke threshold is exceeded (**TEMP. ANTICONDENS.**) plus the set hysteresis value (**HYST. ANTICONDENS.**), therefore at  $135+5= 140^{\circ}\text{C}$ .

In the display, a drop symbol crossed out by an X appears instead of the room fan symbol as in the figure opposite.



Furthermore, if the **ANTICONDENS** function is activated, the smoke fan speed is automatically increased by 400 rpm at speeds **VEL1, VEL 2, VEL 3, VEL 4, VEL 5**. The start phase naturally always remains at the original speed to avoid ignition problems.

As soon as the flue gas temperature rises above the temperature of **TEMP ANTICONDENS (135°C) + the parameter HYST ANTICONDENS (5°C)** then 140°C, the room fan is activated, and the crossed-out drop symbol disappears and the room fan symbol reappears (the smoke fan speed increase of 400 rpm in the **WORK** phase at the 5 powers still remains).



If the **ANTICONDENS** function is active, and you enter the info menu to see the smoke fan speed, this screen will appear. The value on the left is the current value (1898); the value on the right (1500) is the original parameter that is set if the **ANTICONDENS** function is deactivated; the value on the right (1900) is the parameter that is set increased by 400 rpm if the **ANTICONDENS** is activated.

## INFO MENU

To enter the info menu and to see all the important information of service, from the main menu of the display press the two buttons **Plus** and **Minus** together for three seconds until the writing **INFO** appears; press in sequence: **ventilation button, clock button, flame button, minus button and plus button**. The writing **LCD VER.** appears.

<b>LCD VER. 10-08-2020</b> <b>POP STAR 10</b>	Software version of the display
<b>PWB VER. 2016-05-19</b>	Software version of the motherboard
<b>MAIN HZ 50</b>	The motherboard reads automatically the frequency of the electricity supply, 50 HZ (Europe) or 60 HZ (America or Japan)
<b>SMOKE FAN SPEED</b> <b>0</b> <b>2600</b>	RPM actual speed of the smoke fan
<b>COCLEA ON</b> <b>15</b>	Counter of working hours of the feeder
<b>NR. START TOT.</b> <b>3</b> <b>15</b>	Counter nr. of total starts
<b>NR. START CHRONO</b> <b>1</b> <b>5</b>	Counter nr Start by stove chrono
<b>NR START EXT.</b> <b>2</b> <b>5</b>	Counter nr Start by external chrono
<b>NR. START T. AMBIENT</b> <b>0</b> <b>0</b>	t-ambient probe Start counter (only for hydro-line versions)
<b>NR. START R. CONTROL</b> <b>3</b> <b>3</b>	Start counter by Room Control function
<b>WORK HOUR TOT.</b> <b>300</b>	Counter total of hours in working phase
<b>COCLEA HOUR TOT</b> <b>200</b>	Counter of working hours of the feeder from the beginning
<b>T SMOKE</b> <b>120</b> <b>130</b>	It shows the temperature read by the smoke sensor
<b>T BOARD</b> <b>26</b> <b>35</b>	It shows the temperature of the motherboard
<b>T NATURAL</b> <b>40</b> <b>99</b>	pt 100 probe temperature natural (only for the versions natural air)

\*Red values (left values) are the actual recorded data, which can be erased by pressing the button of the room fan, the writing **CLEAR COUNTERS** appears, keep holding the room fan button until the writing **CLEAR COUNTERS CLEARED** appears.

\*\*Black values (right values) are instead the total maximum-recorded data, which can be erased only by making the procedure of **CLEAR COUNTERS** (explained in the previous point) for three times within one minute.

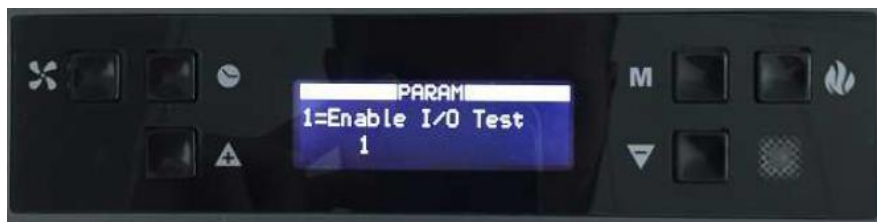
## TEST MENU FOR COMPONENTS

The first point of the parameters menu is **1=ENABLE I/O TEST**.

This function allows testing all components of the stove, both automatically and in the manual mode.

Tests can only be done when the stove is **OFF**.

To activate the components test, once entered the parameters menu "**1=ENABLE I/O TEST**" the number 0 is shown on the display, press the **Plus button** to set the number to 1 and confirm it by pressing the **Flame button**.



The writing “**SEQUENTIAL TEST OFF**” appears. Now by pressing the Flame button, you can scroll down through the different components tests. To start the test press the **Plus button**, to stop press the **Minus button**. To enter the next test menu, press the **Flame button**.



The order of the component test is the following:

- 1) Tst Resistor – If set to ON, it starts the igniter



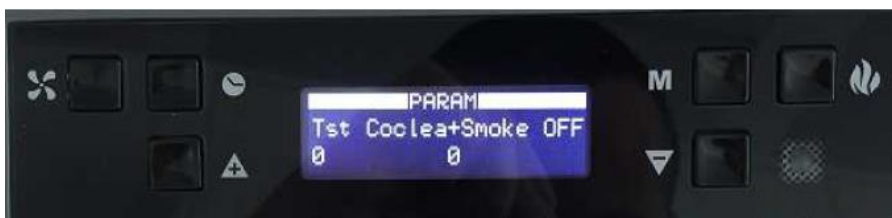
- 2) Tst Smoke Fan – If set to ON, it starts the smoke fan to the maximum power



- 3) Tst Ambient Fan – If set to ON, it starts the room fan to the maximum power



- 4) Tst Coclea+Smoke – If set to ON, it starts both the feeding motor and the smoke fan



In every moment, you can press always the M button to exit the test menu and return to the INFO menu.

As alternative, you can activate the automatic component test. Once set “**1=ENABLE I/O TEST**” to the number 1 and press the Flame button until the writing “**SEQUENTIAL TEST OFF**” appears, activate the automatic test sequence by pressing the **Plus button**.

It will take 15 seconds for each component, in order to check the components by sight and/or with a tester. You can stop the test every time by pressing the **Minus button**.