EN

#### PELLET STOVE

INSTALLATION, USE AND MAINTENANCE MANUAL



MARTINA - VANESSA - ALESSIA - SOLARIS



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#### MANUAL SIMBOLOGY

- The icons with the stylized figures indicates whom the subject dealt in the paragraph is addressed to (between the User and/or the Authorized Technician and/or the Specialized Stove-repairer).
- WARNING symbols indicates an important note.

	USER
- Contraction of the second se	AUTHORISED TECHNICIAN (ONLY to interpret or the Stove-manufacturer or the Authorized Technician of Technical Assistance Service approved by the Stove- manufacturer)
	SPECIALIZED STOVE-REPAIRER
	CAUTION: READ CAREFULLY THE NOTE
	CAUTION: DANGER OR IRREVERSIBLE DAMAGE POSSIBILITY

#### 2 DEAR CUSTOMER

- Our products are designed and manufactured in compliance with standards EN 13240 for wood stoves, EN 14785 for pellet stoves, EN 13229 for fire places, EN 12815 for wood cooker stoves, Dir.89/106/CEE for manufacturing products, Re n.1935/2004 for materials and objects which are in contact with foods, Dir. 2006/95/CEE for low tension, Dir.2004/108/EC for Electromagnetic compatibility.
- Read carefully the instruction contained in this manual to obtain the best efficiency.
- This instruction manual is an integral part of the product: make sure it is delivered with the appliance also in case of sold to others. In case of loss please ask a copy to your local Technical Assistance Service.
- All local regulations, including those referring to national European standards, must be respected during appliance installation.



In Italy biomass system installation below 35 kW must comply with MD 37/08. Every qualified installer who own these requirements, has to issue the certificate of conformity for the installed system ("system" means: stove + chimney + air inlet).

• According to (EU) No. 305/2011 regulation, the "Declaration of Performance" is available online at the web sites www.cadelsrl.com / www.free-point.it.

### 3 CAUTIONS

- All the pictures carried in this manual are only for indicative and explanatory purpose and could therefore slightly differ from your appliance.
- The referring appliance is those you purchased.
- In case of doubts or difficulties in the comprehension or for problems not described in this manual, please
  promptly contact your distributor or installer.
- It is forbidden to modify the appliance without authorization.

#### **4** SPARE PARTS

For each repair or adjustment which should be necessary, please contact the dealer where you purchased your stove or your nearest Technical Assistance Service, specifying:

- Appliance model
- Serial number

ΕN

• Type of problem

Use only original spare parts which you can find at our Technical Assistance Services.

# 5 DISPOSAL

(European directive 2002/96/CE)



Fig. 1 - Disposal

This symbol on the product means that used electric and electronic products must not be mixed with domestic waste.

For a proper disposal, recovery and/or recycling, please take this product to an authorized waste collection points, where they will be accepted for free. For further instructions, please contact your local authority or your nearest waste collection point. In case of wrong disposal of this waste material there could be applied penalties as provided by national laws.



#### 6.1 PACKAGING

- The packaging is made up of recyclable cardboard boxes according to RESY standards, recyclable expanded polystyrene inserts and wooden pallets.
- All packaging materials can be re-used for a similar use or eventually discharged as waste assimilable to the municipal solid ones, in accordance with current regulations.
- After having removed the packaging please assure you about the integrity of the product.



Packaging are not toys and could cause suffocation or strangulation and other health hazards! People (childreen included) with reduced mobility, psycological deseases or without experience and knowledge must be kept away from packaging. The stove is not a toy, please see **ATTENTION page 17**.

#### 6.2 STOVE HANDLING

Both whether the stove is packed or not it is necessary to observe the following instructions for handling and transporting the stove from its sale point to its installation point and for any future movements:

- The stove must be handled with idoneous means paying attention to the existing safety regulations;
- do not turn the stove upside down and/or upset it on one side, but keep it in vertical position or as accorded with the constructor instructions;
- if the stove is made up of ceramic, stone, glass or any particularly fragile material components, all must be moved with the utmost care.

# 7 CHIMNEY FLUE

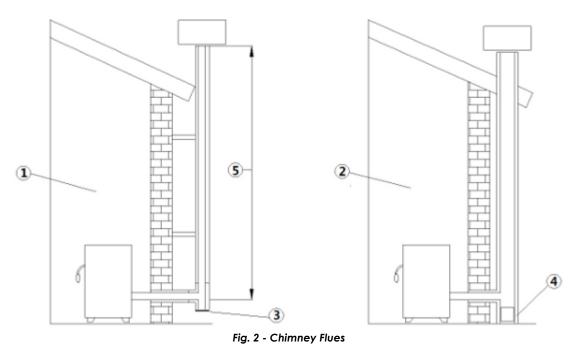
This chapter about the Chimney Flue has been drawn up in cooperation with Assocosma (www.assocosma.org) and is based on European Standards (EN 15287 - EN 13384 - EN 1856 - EN 1443 - UNI 10683:2012). It provides instructions for a good and correct execution of the chimney flue but it does not absolutely replace the current standards which the qualified manufacturer/installer should comply with.



Please check with your local authorities if exists any restrictive regulation which regards the combustible air inlet, the fumes exhaust system, the chimney flue and the chimney pot.

The company declines any responsibility regarding the bad running of the stove if it is due to the use of a no correctly dimensioned chimney flue which does not respect current regulations.

#### 7.2 CHIMNEY FLUE

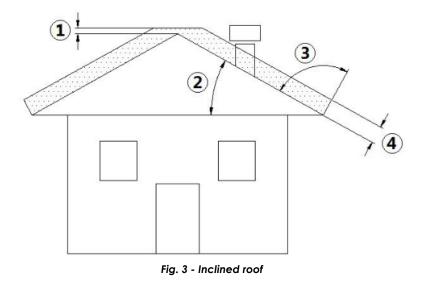


LEGEND	Fig. 2 page 5
1	Chimney flue with insulated stainless-steel pipes
2	Chimney flue on the existing chimney
3	Inspection plug
4	Inspection door
5	≥ 3.5 mt

- The chimney flue or chimney is of great importance for the correct running of the heating appliance.
- It is fundamental that the chimney flue is perfectly built and always maintained with a perfect efficiency.
- The chimney flue must be sole (see Fig. 2 page 5) with insulated stainless-steel pipes (1) or installed on the existing chimney flue (2).
- Both this solutions must be endowed with an inspection plug (3) and/or an inspection door (4).



It is forbidden to connect more pellet stoves or any other heating appliance to the same chimney flue.



 LEGEND
 Fig. 3 page 6

 1
 Height over the ridge of the roof = 0,5 mt

 2
 Roof inclination ≥ 10°

 3
 90°

 4
 Measured distance at 90° from the roof surface = 1,3 mt

- The chimney flue must be sealed from fumes.
- It must have a vertical run without narrowing. It must be realized with fume and condensation resistant materials with thermal insulation and able to last against usual mechanical stresses.



It must be insulated to avoid condensation and to reduce fume cooling effects.

- The stove must be spaced out from fuels or flammable materials with an air gap or with insulating materials. Check the distance with the chimney manufacturer.
- The chimney entrance must be placed in the same room where the appliance is installed or otherwise in the adjacent room and it must be provided with a solid and condensation collection chamber under the entrance, accessible through the sealed metal gate.
- Auxiliary exhaust fans cannot be installed neither along the chimney nor on the chimney pot.
- The inner section of the chimney flue can be round (the best one) or square and the jointed sides must have a minimum radius of 20 mm.
- The section dimension must be minimum Ø120 mm and maximum Ø180 mm.
- Made the efficiency of the chimney flue overhauled by an expert stove-repairer and if necessary cover the chimney flue with materials in compliance with current regulations.
- The flue system must be placed on the roof.
- The chimney flue must be provided CE in accordance with EN 1443 regulation. Please find attached an example of label:

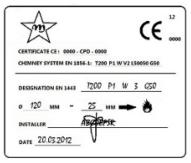


Fig. 4 - Example of label

#### 7.4 HEIGHT-DEPRESSION

The depression (draught) of a chimney flue depends also on its height. Check the depression with the values provided at **FEATURES page 35**. Minimum height 3,5 meters.

#### 7.5 MAINTENANCE

- The chimney flue must be cleaned, since the soot and unburnt oil deposits reduce its section so blocking the draught. In great quantities they can flare up.
- The fumes extraction pipes (fumes conduit + chimney flue + chimney pot) must always be cleaned, scrubbed and checked by an expert stove-repairer, in compliance with current regulations, with the instructions of the stove-manufacturer and the directives of your insurance company.
- In case of doubts, please follow the most restrictive regulations.
- Have your chimney flue and chimney pot checked and cleaned by an expert chimney sweep at least once a week. The chimney sweep has to release a written declaration about the security of the system.
- Not cleaning compromise safety.

#### 7.6 CHIMNEY POT

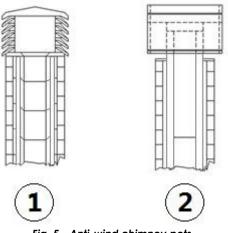


Fig. 5 - Anti-wind chimney pots

The chimney pot is important for the correct running of the heating appliance:

- We recommend using an anti-wind chimney pot, see Fig. 5 page 7.
- The hole width for fumes exhaust must be the double of the chimney flue width and fitted in a way that the fume exhaust is assured also in case of wind.
- It should prevent the infiltration of rain, snow and animals.
- The outlet height in the atmosphere must be away from the reflux area caused by the roof structure or by obstacles laying nearby (see Fig. 3 page 6).

#### 7.7 CHIMNEY COMPONENTS

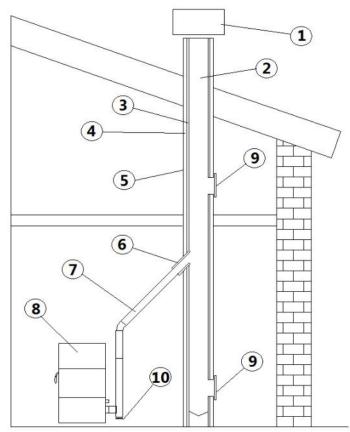


Fig. 6 - Chimney components

LEGEND	Fig. 6 page 8
1	Chimney pot
2	Fume outlet
3	Chimney flue
4	Termal insulation
5	External wall
6	Chimney union
7	Fume pipe
8	Heat generator
9	Inspection door
10	T-union with inspection plug

#### 7.8 EXTERNAL AIR INLET

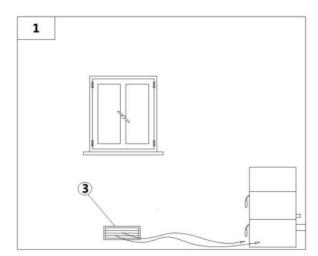


Fig. 7 - Direct air inflow

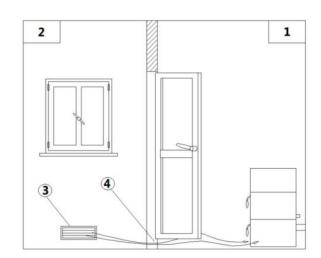


Fig. 8 - Indirect air inflow

# LEGENDFig. 7 page 8|Fig. 8 page 81Room to ventilate2Adjacent room3External air inlet4Cleft under the door

- The room must be endowed with an external air recycling for a good climate in your ambient.
- The air inflow from outside to the inner occurs directly, through an opening on the external wall of the room (see Fig. 7 page 8); otherwise it occurs indirectly by air suction from rooms adjacent to the one to ventilate (see Fig. 8 page 8).
- Bedrooms, garages, and store of flammable materials are excluded.
- The air inlet should have a total net surface of 80 sqcm<sup>2</sup>: the aforesaid surface is to widen if inside the room there are other activated appliances (for example: electric ventilators for foul air suction, cooker hoods, other stoves, etc...) which depress the environment.
- At switched on appliance it is necessary to check that the pressure fall between the room and the outside does not exceed 4,0 Pa value: if necessary widen the air inlet (EN 13384).
- The air inlet must be realized at a height close to the floor with an external grid against birds. In such a way it cannot be obstructed by any object.
- In case of installation with sealed-chamber the air inlet is not necessary.

#### 7.9 CHIMNEY FLUE CONNECTION

Your pellet stove works through a fume draught forced by a fan. It is obligatory to check that all pipes are realized in compliance with the following regulation on material selection: EN 1856-1, EN 1856-2 e UNI/TS 11278. All must be effected by specialized personnel or companies as provided by UNI 10683:2012.

- The connection between the appliance and the chimney flue should be short in order to favor the draught and to avoid condensation in the pipes.
- The fume conduit should be equivalent or longer than the outlet joint ones (Ø 80 mm).
- Some stove models are endowed with a lateral and/or back exhaust. Check that the unused exhaust is sealed with the plug given with standard equipment.

SYSTEM TYPE	Ø80 mm PIPE	Ø100 mm PIPE
Minimum vertical length	1,5 mt	2 mt
Maximum length (with 1 union)	6,5 mt	10 mt
Maximum length (with 3 unions)	4,5 mt	8 mt
Maximum number of unions	3	3
Level section (minimum inclination 3%)	2 mt	2 mt
Installation at a height above 1200 m a.s.l.	NO	Obligatory

- Use a plate pipe for stoves of Ø80 mm or Ø100 mm depending on the type of system and with silicone gaskets.
- It is forbidden to use metal, fibre cement or aluminium flexible pipes.
- For change of direction it is obligatory always to use a union (with angle > 90°) with inspection plug which enables an easy periodic cleaning of the pipes.
- Please assure you that after the cleaning the inspection plugs are sealed with its efficient gasket.
- It is forbidden to connect more appliances to the same fume conduit.
- It is forbidden to convey in the same fume conduit exhausts from overhanging cooker hoods.
- It is forbidden to exhaust flue gases directly from the wall towards the outside and closed spaces also at open top.
- It is forbidden to connect any other appliance (wood stoves, cooker hoods, boilers, etc...).
- The fume conduit must be placed at a distance of minimum 500 mm from flammable or heat-susceptible components.

#### 7.10 EXAMPLES OF CORRECT INSTALLATION

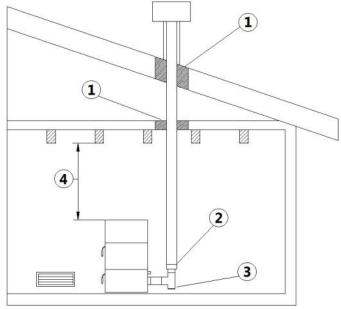


Fig. 9 - Example 1

LEGEND	Fig. 9 page 10
1	Insulating material
2	Reduction from Ø100 to Ø80 mm
3	Inspection plug
4	Minimum safety distance = 0,5 mt

• Chimney flue installation Ø120 mm with an enlarged drilling for pipe transit.

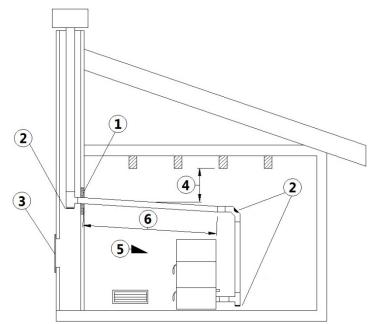
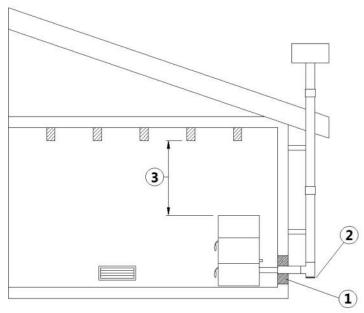


Fig. 10 - Example 2

LEGEND	Fig. 10 page 10
1	Insulating material
2	Inspection plug
3	Chimney inspection entrance
4	Minimum safety distance = 0,5 mt
5	Inclination $\geq 3^{\circ}$
6	Level section $\leq 1 \text{ mt}$

• Old chimney flue with an inserted pipe of minimum Ø120 mm and with an external door which enables the chimney cleaning.



#### Fig. 11 - Example 3

LEGEND	Fig. 11 page 11
1	Insulating material
2	Inspection plug
3	Minimum safety distance = 0,5 mt

- External chimney flue entirely made up of insulated stainless steel pipes, i.e. with double wall of minimum Ø120 mm: all must be firmly attached to the wall. For chimney against wind effects please (see Fig. 5 page 7).
- Ducting system through T-unions which enables an easy cleaning without disassembling the pipes.



We recommend to check with your chimney flue manufacturer the safety distances which must be respected and the type of insulating material. The aforesaid regulations are valid also for holes made on the wall (EN 13501 - EN 13063 - EN 1856 - EN 1806 - EN 15827).

# 8 FUEL

#### 8.1 FUEL

- The type of fuel to use is only the pellets.
- Use top-quality pellets because they have influence in the calorific value and in ash remains.
- Pellets features are: dimension Ø6-7mm (D06 Class), maximum lenght 40 mm, calorific value 5kWh/kg, humidity ≤ 10%, ash remains ≤ 0,7%, they must be correctly pressed and not much mealy, without sizing agents, resins and other additives (it is advisable to use pellets in compliance with the regulation EN14961-2 type ENplus-A1).
- Not adequate pellets cause a bad combustion, a frequent burning pot obstruction and exhaust conduits obstruction. Further it decreases the calorific value, soils the glass and increases consumptions and ash and unburnt granules quantity.



Humid pellets cause a bad combustion and running, so please assure you that they are stored in dry places and far at least one meter from the stove and/or any other source of heat.

- It is advisable to try different type of pellets available on the market and to choose that which gives the best performance.
- The use of bad quality pellets can damage the stove so that the warranty and manufacturer liability fall.
- Do not use the appliance as waste inceneretor.
- On all our product are used high-quality materials such as stainless-steel, steel, cast iron, etc... These materials, before being sold on the market, are tested in laboratory, but despite this on the components which enable the pellets flow (auger) there could exist minimum differences in the material used, in roughness and porosity, which could generate usual variations in fuel transportation (pellets), causing a flame raising or drapping with

a possible switching off at lower powers.

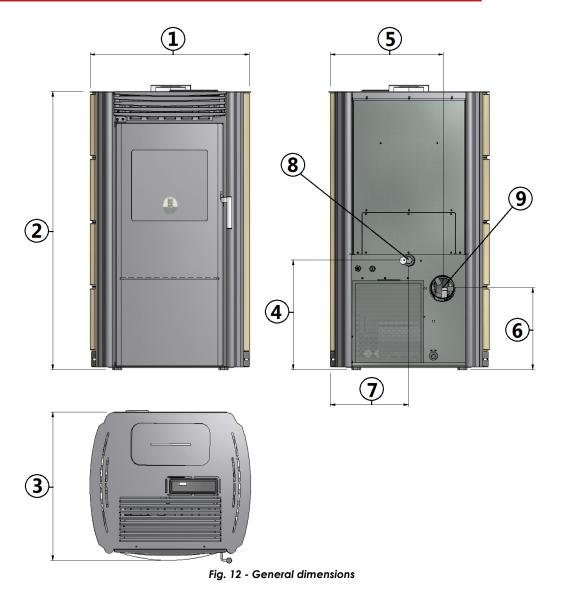
Depending on the type of pellets it could be necessary a parameters adjustment, please contact an Authorized Assistance Service.



#### 9.1 INTRODUCTION

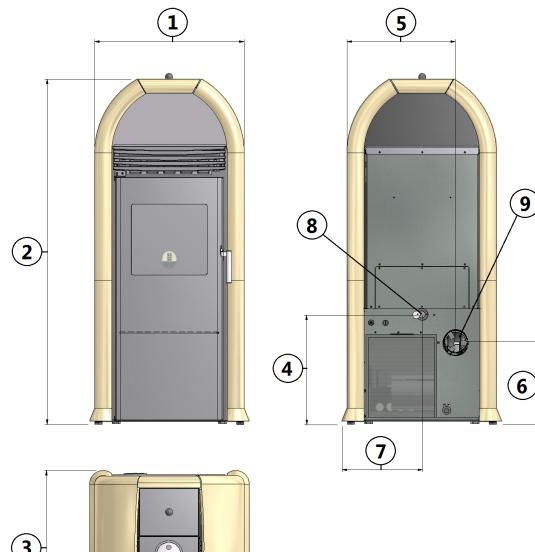
- The assembly position must be chosen depending on environment, outlet, chimney flue.
- Check with local authorities if there are any restrictive regulations which regard the combustible air inlet, room ventilation, fume exhaust system together with chimney flue and chimney pot.
- The manufacturer declines any responsibility in case of installation which are not in compliance with current regulations, in case of a wrong room ventilation system, in case of an electric connection which is not in compliance with regulations and in case of a wrong use of the appliance.
- The installation must be executed by an authorized technician, who must release to the user a declaration of conformity of the system and will assume the whole responsibility on the final installation and on the resulting good running of the product.
- As equipment with the stove there is a testing and maintenance manual which must be periodically executed by the installer.
- Check if there is the combustible air inlet.
- Check the probable presence of other stoves or appliances which could depress the room (see EXTERNAL AIR INLET page 8).
- Check at switched on stove if there is the presence of CO in the room.
- Check if the chimney has the necessary draught.
- Check if during the fume passage all has been executed in safety (probable fume losses and distances from flammable materials, etc....).
- The installation of the appliance must enable an easy access for appliance, fume exhaust pipes and chimney flue cleaning.
- The installation must enable en easy access to the electric connection plug (see **ELECTRIC CONNECTION** page 16).
- It is forbidden to install the stove in bedrooms, bathrooms and in rooms used for storing combustible materials and in one-room flats.
- The installation in one-room flats is allowed if they are in sealed chamber.
- In any case the stove must not be installed in rooms where it can get in touch with water or water splashes because this can cause burn hazards and short-circuit.
- To install more appliances, the external air inlet must be correctly dimensioned (see **EXTERNAL AIR INLET page** 8).

#### 9.2 OVERALL DIMENSIONS (MARTINA-VANESSA-ALESSIA MODELS)



LEGEND	Fig. 12 page 13
1	57 cm
2	98 cm
3	52 cm
4	38,5 cm
5	36,7 cm
6	29 cm
7	28 cm
8	Hole combustion air inlet d.4 cm
9	Exhaust fumes d.8 cm

#### **OVERALL DIMENSIONS (SOLARIS MODEL)** 9.3



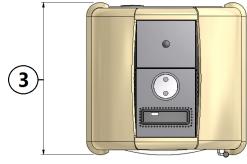


Fig. 13 - General dimensions

LEGEND	Fig. 13 page 14
1	52,6 cm
2	121,6 cm
3	53,6 cm
4	38,5 cm
5	36,7 cm
6	29 cm
7	28 cm
8	Hole combustion air inlet d.4 cm
9	Exhaust fumes d.8 cm

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#### 9.4 GENERAL INSTALLATION

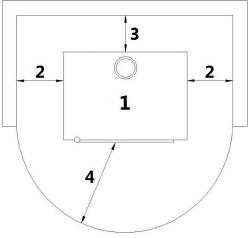


Fig. 14 - General installation

LEGEND	Fig. 14 page 15
1	Stove
2	Minimum lateral distance = 300 mm
3	Minimum rear distance = 200 mm
4	Minimum front distance = 1000 mm

- Please check that the floor has an adequate load capacity. If the existing one does not satisfy this requirement, appropriate measure should be provided (for example a plate for distributing the load).
- It is obligatory to install the stove away from walls and/or pieces of furniture, with a minimum air flow of 300 mm on the sides and 200 mm on the back, to enable an eficient appliance cooling and a good distribution of heat in the room (see Fig. 14 page 15).
- For safety fire regulations the distances from flammable or sensible to heat objects (sofas, pieces of furniture, wooden covering, etc...) must be respected, has described in Fig. 14 page 15.
- If there are highly flammable objects (curtains, fitted carpet, etc...), all these distances must be further increased with 1 meter.
- If the walls are made up of flammable materials, check the safety distances (see Fig. 14 page 15).
- At maximum power check that the wall temperature does not ever exceed 80°C. If it would be necessary please install a fire resistant plate on the concerned walls.
- In some countries also masonring load-bearing walls are considered flammable.

#### 9.5 SIDE PANEL ASSEMBLY (MARTINA MODELS)



Fig. 15 - Upper screws removal



Fig. 16 - Backward screws removal

• Remove the top cover: unscrew the 2 upper screws and the 3 backward screws (see Fig. 15 page 15 and Fig. 16 page 15).



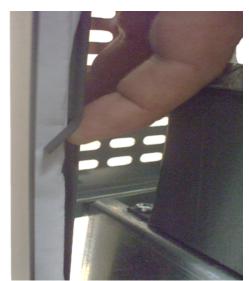


Fig. 17 - Bend the supports

• Slightly bend the supports in order for them to compensate any movement in the metal/majolica/stone panels (see Fig. 17 page 16).





Fig. 18 - Side panel insertion

Fig. 19 - Ceramic panel insertion

- Insert from on high the metal side panels on the appropriate guides getting it slightly course all the way (see Fig. 18 page 16).
- Insert from on high the ceramic side panels on the appropriate guides getting it slightly course all the way (see Fig. 19 page 16).
- Recompose all.

#### 9.6 ELECTRIC CONNECTION



Warning: the appliance must be installed by an authorized technician!

- The electric connection occurs through a cable with plug put in an electric socket which is able to support charge and tension specific of every model, as described in the technical datas table (see **FEATURES page 35**).
- The plug must be easily accessible when the appliance is installed.



The cable must not get in touch with the fume exhaust pipe and nor with every other part of the stove.

- Please further assure you that your network is endowed with an efficient earth connection: if it does not exist or if it is not efficient, please endow you with one in compliance with the law.
- Do not use extension cables.
- If the feeder cable is damaged, it must be replaced by an authorized technician.
- When the stove is not going to be used for a long period of time, it advisable to remove the plug from the socket on the wall.

#### 9.7 CONNECTION TO THE EXTERNAL THERMOSTAT

The stove works through a thermostat probe placed in its inner. If you desire, the stove can be connected to an external room thermostat. This operation must be executed by an authorized technician. For connection see :

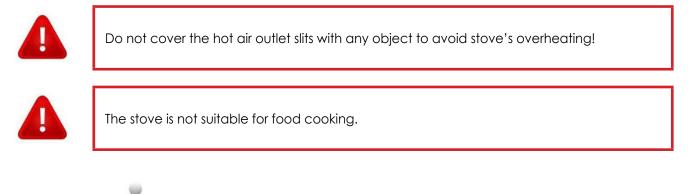
- external thermostat: set up a temperature which is round 7°C.
- External chronothermostat: set up a temperature which is round 7°C and desable the chrono functions from the menu 03-01.

#### 9.8 VENTILATION

- The stove is endowed with a ventilation system.
- The air blown from fans keeps the appliance at a low temperature range in order to avoid high stresses to the materials which make it up.



Fig. 20 - Do not cover air slits





#### 10.1 ATTENTION



This appliance must not be used by people (childreen included) with reduced mobility, psycological deseases or without experience and knowledge except in case of supervision or instruction about the use of the appliance by people responsible for their safety.



Childreen must be constantly overseen in order to assure that they do not play with the appliance.



The stove is provided with a hand rejector: this rejector can be removed exclusively by the stove manufacturer or by the Technical Assistance Service.



During its running, the stove reaches high temperatures: keep away childreen and animals and for your safety please use appropriate fireproof devices, such as heat-protecting gloves.

#### **10.2** INTRODUCTION

To have the best performance with the lowest consumption please follow the here descripted instructions.

- The lightning of the pellets occurs very easily if the installation is correct and if the chimney flue is efficient.
- Switch on the stove at Power 1 for at least 2 hours in order to enable the materials which make up the boiler and the fireplace to adjust the inner springing stress.
- Oily plant waste and lacquers can cause smells and smoke during the first working hours: it is advisable to ventilate the room because they could be noxious to people and animals.
- By using the stove the varnish inside the combustion chamber could be subjected to alterations. This occurrence can be attributed to different reasons: an excessive stove overheating, the presence of chemical agents in bad quality pellets, bad chimney draught, etc. Therefore varnish endurance in the combustion chamber cannot be guarantee.



Set values from 1 to 5 are defined by the manufacturer and they can be changed only by an authorized technician.

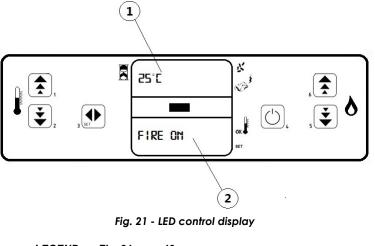


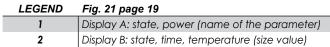
Do not use flammable liquids during the ignition (alcool, petrol, oil, etc...).

#### 10.3 CONTROL PANEL

PANEL ELEMENT	DESCRIZIONE
	P1 e P2: when you are in set temperature mode the termostat values increase or decrease from min. 6°C to max. 40°C. Keeping pressed P2 you check the fume temperature at outlet. Both have programming functions.
3 (517	P3: enable to have access to temperature set and to User and Technician parameters menu.
	P4: ignition and shut down, unblocking from probable alarms and exit from programming.
5 6	P5 e P6: increase and decrease the calorific power from 1 to 5.
	Hourly programming: acitvated.
ي لا	Auger: activated.
	Remote control data reception

PANEL ELEMENT	DESCRIZIONE	
ok	Thermostat: activated	Ε
SET	Flashing: during the temperature set or when inside the menu	
Display A	During the starting up shows the mother board state. During the running shows the heating power. During the setting shows the parameters in modification	
Display B	During the starting up shows the mother board state. During the working phase shows the temperature set by the user. During parameters modification shows the value of the parameter in modification.	





#### 10.4 IGNITION

We remind you that the first ignition must be executed by authorized and skilled technical personnel who checks that all is installed in compliance with current regulations and verifies stove's efficiency.

- If inside the combustion chamber there are booklets, manuals, etc.... please remove them.
- Check that the door is correctly closed.
- Check that the plug is correctly put into the electric socket.
- Before switching the stove on, please assure you that the burning pot is cleaned.
- To start the stove up, keep pressed P4 key for an instant till the display shows "FAN CAND": the preheating of the ignition plug starts. After 2 minutes about, the display will show "LOAD WOOD": now the auger load the pellet and the preheating of the ignition plug continues. When the temperature is sufficiently high (after about 7-10 minutes), the ignition is considered as occured and the display shows "FIRE ON".
- When the "FIRE ON" phase has finished, the control unit enters in working mode and the selected calorific power and the ambient temperature will be shown. It is in this phase that P5 and P6 are useful for regulating the stove power from 1 to 5.

#### **10.5** FLAME ADJUSTMENT

It is possible to regulate the flame thanks to the PVC lid applied to the combustion air inlet pipe which stands on the back side of the stove.

• If the flame is weak and the glass tends to blackens, this means that the combustion is not correct: it is necessary to open the regulator (see Fig. 22 page 20).



Fig. 22 - Regulator

#### 10.6 FAILED IGNITION

If the pellets do not burn, the failed ignition will be indicated by the alarm "ALAR NO FIRE"

If the room temperature is lower than 10°C, the plug is not able to bear the ignition stage. To support it please
insert some pellets in the burning pot and a piece of burning firelighter igniter material on the pellets (for
example firelighters cubes).



After a failed ignition the burning pot must be empty from the amassed pellets, before starting the stove up again.

• Too much pellets in the burning pot, or humid pellet, or sooty burning pot make ignition difficult and create dense white smoke which is harmful to health and can cause explosions on the combustion chamber. It is therefore necessary not to stand in front of the stove during ignition stage if dense white smoke is present.



If after some months the flame appears weak and/or orange colored or the glass tends to blackens and the burning pot to become encrusted, clean the stove, clean the fume conduit and the chimney flue.

#### 10.7 POWER FAILURE

- After a black-out, after its reactivation, the stove signals on the display "ALAR NO RETE".
- The stove starts the switching off phase up by activating the fume fan which for 15 minutes will arrange for the fume remainings expulsion.
- Reset the error with P4 key.
- Clean the burning pot and start the stove up again with P4 key.

#### **10.8 TEMPERATURE SETTING**

- To modify the ambient temperature it is sufficient to keep pressed P3 key and at the same time select the temperature with P1 and P2 keys.
- The selected temperature and the ambient temperature are shown on the Display B.
- If the ambient temperature value exceeds the selected limit, the calorific power falls at the minimum till the threshold return at the preset value, then the display shows "RIS".

#### **10.9 FUME TEMPERATURE**

To check fume temperature at the exhaust outlet, it is sufficient to keep pressed P1 key.

#### 10.10 SWITCHING OFF

To switch the stove off, keep pressed P4 key: the display A shows "OFF". After about 15-20 minutes also the fume fan switches off (this occurs always wheter the stove is hot or cold).



If the pellets are of bad quality (if contains sizing agents, oils, varnishes, plastic remains or if it is mealy), deposits will form along pellets drop pipe during the running. When the stove is switched off, these remains could form little hot coals that rising along the pipe could reach the pellets on the hopper burning them and creating a thick and harmful smoke inside the room. Please always keep the hopper closed with its own lid. If the pipe is sooty, please clean it (see **INTRODUCTION page 24**).

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#### 10.11 CLOCK SETTING

- Press many times P3 key till the green led with the clock appears.
- Then the display shows "UT02": adjust the time with P1 and P2 keys.

#### 10.12 WEEKLY SETTING

It is possible to set the ignition and the switching off of the stove daily for 7 days and with 2 daily intervals (PROGRAM 1 and PROGRAM 2).

In every moment, P4 key enables to exit from the programming. The chronothermostat parameters are the following:

DISPLAY	SETTING	
UT01	Current day and use mode	
UT02	Time	
UT03	Minutes	
UTO4	Technical parameters (for technicians)	
UT05	Ignition time PROGRAM 1	
UT06	Switching off time PROGRAM 2	
UT07	Days of the week selection with ignition at the morning	
UT08	Ignition time PROGRAM 2	
UT09	Switching off time PROGRAM 2	
UT10	Days of the week selection with ignition in the afternoon	

- To know the chronothermostat state check the parameter UT01: "DAY" (active), "OFF" (disactivated).
- UT01: it is useful to insert the weekly setting in "DAY" or to exclude it if in "OFF". Select the day of the week from "DAY1" which correponds to Monday till "DAY7" which is Sunday. If the parameter UT01 is set with the current day (for example DAY2 i.e. Tuesday), it is possible to select the day of the week to which arrange the ignition PROGRAM 1 and/or PROGRAM 2. By keeping pressed P1 and P2 keys it is possible to select the desired value.
- UT05 UT06: state the selected start and end time in PROGRAM1 for switching the stove on. Its setting is active when UT01 parameter is programmed in weekly setting. When PROGRAM 1 is active, select the day of the week with P1 key and activate or disactivate the switching on of the stove with P2 key.
- UT07: this parameter is active when parameter UT01 is set on weekly mode. When PROGRAM 1 is active, use the P1 button to select the day of the week and the P2 button to activate/deactivate stove ignition.
- UT08 UT09: state the selected start and end time in PROGRAM 2 for switching the stove on. Its setting is active when UT01 parameter is set in weekly mode.
- UT10: this parameter is active when the parameter UT01 is set in weekly mode. When PROGRAM 2 is active, with P1 key select the day of the week and with P2 key activate or disactivate the switching on of the stove.

#### 10.13 FIRE EXTINGUISHING IN CASE OF FIRE

In case it would be necessary to extinguish the fire emitted by the stove or by the chimney flue, use a fireextinguisher or contact the firemen. DO NOT use water to extinguish the fire inside the burning pot.

#### **10.14** PELLET SUPPLY



Fig. 23 - Wrong opening of the pellets bag



Fig. 24 - Right opening of the pellets bag

It is necessary to avoid to fill the hopper with the pellet when the stove is running.

- Do not get the bag of pellet in contact with hot stove surfaces.
- Do not empty the hopper with remaining fuels (unburnt pellet) from the burning pot coming from ignition waster.



The pellet hopper must always be closed with its own lid.

#### **10.15 REMOTE CONTROL (OPTIONAL)**

The stove can be operated through a remote control. (Please install 12V N type battery)



Fig. 25 - Remote control

LEGEND	Fig. 25 page 22
Button 1 Increase the desired temperature	
Button 2	Decrease the desired temperature
Button 5	Decrease the power level from 5 to 1
Button 6	Increase the power level from 1 to 5
Buttons 1 and 6	Pressed together enable to turn the stove on and off

# SAFETY SYSTEM

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#### 11.1 INTRODUCTION

Safety devices are used to prevent and avoid the risk of damages to people, animales and objects. It is forbidden to execute repearing by no authorized personnel otherwise the warranty and the manufacturer liability fall.



Before of every intervention leave the fire completely extinguish till the cooling and always disconnect the plug from the electric socket.

#### 11.2 "ALAR NO RETE" ALARM

- "ALAR NO RETE": outage during ignition.
- The stove starts up the switching off phase up by activating the fume fan which for 15 minutes will arrange for fume remainings expulsion.
- Reset the error with P4 key.
- Check the type of glitch as provided by ALARMS page 29.
- Clean the burning pot and start the stove up againg with P4 key.

#### 11.3 "ALAR SOND" ALARM

To the exhaust fan is connected a probe which constantly controls the running temperature.

- "ALAR SOND": the probe is damaged or disconnected.
- The stove starts the switching off phase by activating the fume fan which for about 15 minutes will arrange for fume remainings expulsion.
- Reset the error with P4 key.
- Check the type of glitch as provided by ALARMS page 29.
- Clean the burning pot and start the stove up again with P4 key.

#### 11.4 "ALAR HOT TEMP" ALARM

If the fume probe find a temperature at the exhaust which is higher than 200°C, the display will show "RIS". At that point, the combustible flow (pellet) decreases at 1 phase.

This function has the purpose to bring the value back to the preselected data. If for different reasons the temperature does not decrease but increase, at 215°C the display will show "ALAR HOT TEMP" and the stove start the switching off phase up.

- The stove starts the switching off phase up by activating the fume fan which for about 15 minutes will arrange for fume remainings expulsion.
- Reset the error with P4 key.
- Check the type of glitch as provided by ALARMS page 29.
- Clean the burning pot and start the stove up again with P4 key.

#### 11.5 "ALAR NO FIRE" ALARM

- "ALAR NO FIRE": the temperature is not sufficient for ignition.
- The stove starts the switching off phase up by activating the fume fan which for about 15 minutes will arrange for fume remainings expulsion.
- Reset the error with P4 key.
- Check the type of glitch as provided by ALARMS page 29.
- Clean the burning pot and start the stove up again with P4 key.

#### 11.6 "ALAR DEP" ALARM

To the boiler is connected a pressostat which controls the depression.

- "ALAR DEP": the pressostat stops the power to the auger.
- The stove starts the switching off phase up by activating the fume fan which for about 15 minutes will arrange for fume remainings expulsion.
- Reset the error with P4 key.
- Check the type of glitch as provided by ALARMS page 29.
- Clean the burning pot and start the stove up again with P4 key.

#### 11.7 "ALAR SIC" ALARM

There is a thermostat probe near the hopper, which cuts in if the temperature range of the hopper exceeds the limits allowed, thereby eliminating the possibility for the pellets in the hopper to ignite due to overheating.

- "ALAR SIC": the manual reset thermostat cuts out electricity to the auger.
- The stove starts the switching off phase up by activating the fume fan which for about 15 minutes will arrange for fume remainings expulsion.
- Reset the error with P4 key.
- Check the type of glitch as provided by ALARMS page 29.
- Unscrew the black cap, press the button and screw the cap again.
- Clean the burning pot and start the stove up again with P4 key.

# 12 MAINTEINANCE

#### 12.1 INTRODUCTION

For a long working life of the stove, have a periodic cleaning of the stove as described in the following paragrafs.

- Fume outlet pipes (fume conduit + chimney flue + chimney pot) must always be cleaned, scrubbed and checked by an authorized technician in compliance with local regulations, with the instructions of the manufacturer and those of your insurance company.
- If there are no local regulations and no instruction from your insurance company, it is necessary to have your fume pipe, chimney flue and chimney pot cleaned at least once a year.
- It is also necessary to have the combustion chamber, motors and fans cleaned and to have the gaskets and the electronical elements checked at least once a year.



All these operations must be planned in time with your Autorized Technical Assistance Service.

- After a long ineffective time, before turning on the stove check if there are obstructions in the fume exhaust.
- If the stove had been using continuously and intensely, the whole system (chimney included), must be cleaned and checked more frequently.
- In case of replacement of damaged pieces please ask for the original spare part at the Autorized Retailer.



Before any movement let the fire inside the combustion chamber extinguish till the total cooling and always disconnect the plug from the socket.

#### 12.2 BURNING POT AND ASH TRAY CLEANING



The burning pot and ash tray cleaning must be executed at least every 2 days.

Open the door.



Fig. 26 - Burning pot cleaning



Fig. 27 - Burning pot box cleaning

- Extract the burning pot from its seat and empty it from the ash.
- Extract the ash tray and empty it from the ash.
- If necessary clean with a pointed object the holes obstructed by encrustations (see Fig. 26 page 24).

Fig. 28 - Cleaning with a brush

- Clean also the hole for pellet drop with a brush (see Fig. 28 page 24).
- The ash remains must be poured in a metal container with a sealed lid and this container must never get in touch with combustible materials (for example put on a wooden floor), as the inner ash keeps the embers firing for a long time.
- Only when the embers are off the ash coul be poured in the organic waste.
- Pay attention if the flame becomes red colured, if it is weak or if black smoke creates in the inner: in this case the burning pot is encrusted and needs to be cleaned. If it is broken, it must be replaced.

#### 12.3 HOPPER AND AUGER CLEANING

Per each pellets supply, check the probable presence of meal, sawdust and other remanins on the hopper bottom. If present, they must be removed with the aid of a vacuum cleaner (see Fig. 29 page 25).

Fig. 29 - Hopper and auger cleaning

The hand rejector grid must not ever be removed fron its housing. Clean the hopper bottom and the visible part of the auger exclusively as shown in the picture (see **Fig. 29 page 25**).

If the auger is blocked by a foreign object (for example: nails), and if it needs to be cleaned, DO NOT remove the hand rejector and DO NOT touch the auger. Please contact the

12.4 FUME CHAMBER CLEANING

Every 4/8 weeks the fume chamber cleaning must be executed.

Technical Assistance service.







The hand rejector can be removed exclusively by an authorized technician.

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Fig. 30 - Fume chamber



Fig. 31 - Fume chamber cleaning

- Unscrew the 2 fume chamber closing zincate panel screw which stands on under the door (see Fig. 30 page 26).
- Clean with a vacuum cleaner the ash which has accumulated on the inner (see Fig. 31 page 26).
- After the cleaning the opposite operation is to repeat checking the gasket efficiency and integrity: if necessary provide for its replacement by an Authorized Technician.



The exhaust system must be cleaned every month.



Fig. 32 - Fume conduit cleaning

- Remove the inspection lid of the T-union (see Fig. 32 page 26).
- Extract the ash which has accumulated in the inner.
- After cleaning repeat the operation in reverse order, checking the condition and efficiency of the gasket, and if necessary replace it.



It is important to sealed the cap othrwise noxiuous fumes will propagate among the room.



Clean every the year the fume fan from ash or dust which can cause a blade unbalance and a greater noise.



As this operation is so delicate it must therefore be executed by an Authorized Technician.



. 33 - Fume fan cleaning: phase 1





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Fig. 34 - Phase 2

Fig. 35 - Phase 3

Follow the process as describer in Fig. 33 page 27, Fig. 34 page 27 and Fig. 35 page 27.



Clean every the year the room fan from ash or dust which can cause a blade unbalance and a greater noise.



12.7

12.9

As this operation is so delicate it must therefore be executed by an Authorized Technician.



#### Fig. 36 - Room fan cleaning

Remove the rear panel and clean with a vacuum cleaner the ash and the dust which has accumulated on the inner (see Fig. 36 page 27).

#### **12.8** FUME PIPES ANNUAL CLEANING

Clean once a week from soot with brushes.

The cleaning operation must be executed by a specialized stove-repairer who will provide for the cleaning of fume pipe, chimney flue and chimney pot. He will also check their eficiency and will release a written declaration of the safety of the appliance. This operation must be executed at least once a year.



For cleaning external and inner parts of the stove do not use steel wools, muriatic acid or other corrosive and abrasive materials.

# 12.10 CLEANING OF PAINTED METAL PANELS



To clean painted metal panels use a soft cloth. Do not use degreasant agents like alcool, diluents, acetone, gasoline because these could irremediably damage the varnish.

#### 12.11 CLEANING OF CERAMIC AND STONE PANELS



Some stove models has an external lining made up of ceramic or stone. These pieces are handmade therefore they could inevitably present crazings, seedinesses, shadings.

To clean ceramic or stone panels use a soft and dry cloth. If using any cleaners this will seep through the crazings putting them in evidence.



#### 12.12 GASKET REPLACEMENT

In case of deterioration of fire door, hopper or fume chamber gaskets, it is necessary to replace them by an autorized technician in order to guarantee the good running of the stove.



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Use exclusively original spare parts.

#### 12.13 GLASS CLEANING

The glass-ceramic of the fire door is able to stand till 700°C but not to thermal shocks. The probable cleaning with usual sale product for glass cleaning must be effected at cool glass in order to avoid explosions.



You should clean the fire door glass every day!







Before of every testing and/or intervention by the Authorized Technician, the Authorized Technician must check that the parameters of the circuit board correspond to those of the table you own.



In case of doubts regarding the stove running, please allways contact the Authorized Technician in order to avoid irreparable damages.

ALARM	CAUSE	SOLUTION	INTERVENTION
	By chance desconnected plug	Check if the plug is connected to the socket.	
ALAR NO RETE	Temporary black out	Check the black out and start the stove up again.	
	Faulty mother board	Replace the mother board.	
ALAR SOND	Disconnected fume temperature probe	Have the stove checked.	and the second s
ALAK SOND	Faulty fume temperature probe	Replace the fume probe.	
	Faulty fume probe	Replace the fume probe.	and the second s
ALAR HOT	Faulty mother board	Replace the electronic board.	
ТЕМР	The ambient exchanger fan does not work	Replace the ambient fan.	- Alexandre
	To high pellet drop value "phase 5"	Control the pellet drop.	

ALARM CAUSE		SOLUTION	INTERVENTION
	Boiler overheating	Let stove cool and reset. (If the problem persists, please contact an Authorized Techinician).	<u> </u>
	The ambient exchanger fan does not work	Replace the ambient fan.	
ALAR SIC	Temporary black out (when the stove is in operation)	The boiler to overheat and requires manual resetting. Reset and start the stove.	<u> A</u> A
	Faulty thermostat	Replace manual reset thermostat.	
	Faulty mother board	Replace the electronic board.	and the second
	Empty hopper	Full the hopper.	
	Burning pot has not been cleaned	Clean the burning pot.	<u>B</u> A
	The switching on threshold to the probe has not been reached	Clean the burning pot and switch the stove on again. (If the problem persists, please contact an Authorized Techinician).	
ALAR NO FIRE	Faulty ignition plug	Replace the igniter resistance.	and the second sec
	Too severe external temperature	I Start the stove up dagin	
	Humid pellets	nid pellets Check if the pellet is stored in a dry place.	
	Blocked thermal probe	Replace the thermal probe.	-
	Faulty mother board	Replace the mother board.	and the second sec

ALARM	CAUSE	SOLUTION	INTERVENTION
	The fire door is not correctly closed	Close the fire door correctly and check if the gaskets are not damaged. (If damaged, have it replaced by an Authorized Technician)	
	Obstructed exhaust	The exhaust chimney is partially or totally obstructed. Please contact an expert stove-repairer who checks the stove from the exhaust till the chimney pot. Have it immediately cleaned. It can be noxious to health to let the stove running with an obstructed chimney.	
	Out of order fume fan	The pellets can burn also due to the chimney flue	
ALAR DEP	•		
	Faulty pressostat	Replace the pressostat.	
	Faulty mother board	Replace the mother board.	
	Overlength of the chimney	Contact an expert stove-repairer and check if the exhaust chimney is in compliance with the regulations: see <b>CHIMNEY FLUE page 5</b>	
	Adverse wheather conditions	In case of strong wind there can be a negative pressure to the chimney. Check it and switch the stove on again.	

#### **13.2 PROBLEM SOLVING**

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Before every testing and/or intervention of the Authorized Technician, the Autorized Technician personally has the duty to verify that the parameters of the electronic board meet those of the reference table you own.

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In case of doubts regarding the running of the stove please contact ONLY the Autorized Technician in order to avoid irreparable damages!

PROBLEM	CAUSE	SOLUTION	INTERVENTION
	Stove without power supply	Check if the plug is put in the socket.	
	Burned board protection fuse	Replace the board protection fuse (4A-250V).	and the second
Control display does not ignite	Faulty control display	Replace the control display.	
	Faulty flat cable Replace tha flat cable.		- AND
	Faulty electronic board	Replace the mother board.	
	Empty tank	Full the hopper.	
Pellet does not reach the	Auger blocked by a foreign object (for example nails)	Clean the auger.	-
combustion chamber	Auger geared motor out of order	Replace the geared motor.	Sales
	Check on the display if there is an active alarm ("ALAR DEP", "ALAR SIC")	Have the stove overhauled.	

PROBLEM	CAUSE	SOLUTION	INTERVENTION
	Empty hopper	Full the hopper.	
	Auger blocked by a foreign object (for example nails)	Clean the auger.	-
Fire extinguishes and stove stalls	Poor quality pellet	Try with other types of pellets.	
	Pellet loading value too law "phase 1"	Adjust pellet load.	
	Check if there is an active alarm "ALAR DEP", "ALAR SIC")	Have the stove overhauled.	- Alexandre
Running stove and display showing "STOP FIRE"	displayAutomatic burning potAt idling stove and at maximum fume suction NOving "STOPcleaningPROBLEM!		
	Insufficient combustion air	Check the following inscription: probable obstructions for combustion air inlet from the stove back or bottom; obstructed holes of the burning pot grid and/or burning pot with too ash. Have the fun blades and its screw cleaned.	- AL
Flames are weak and orange, pellets do not burn	Obstructed exhaust	The exhaust chimney is partly or fully obstructed. Contact an expert stove-repairer to check the exhaust up to the chimney pot. Please clean it immediately.	
properly and the glass blackens	Obstructed stove	Clean the stove inner.	
	Fume aspirator out of order	Pellet can burn also thank to chimney flue depression without the aid of the fume fan. Have the fume fan replaced immediately. It can be harmful to health to run the stove without fume fan.	
Heat exchanger fan keeps turning	Faulty fume temperature probe	Replace the fume probe.	24
even when the stove has cooled	Faulty electronic board	Replace the mother board.	

PROBLEM	CAUSE	SOLUTION	
	Faulty or broken door gaskets	Replace the gaskets.	and the second s
Ash nearby the stove	Fume conduits not sealed	Contact an Autorized Stove-repairer who will seal the gaskets with silicone at high temperature and/or will replace the pipes with others in compliance with current regulations. A not sealed fume outlet can cause damages to health.	
Stove running	Room temperature reached	Stove idling. NO PROBLEM!	
and display showing "RIS"	Fume outlet limit temperature reached	Stove idling. NO PROBLEM!	



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#### 14.1 **REPAIR INFORMATION**

Now we give some instructions for the Authorized Technician to take into consideration to have access to stove mechanical components.

- STOVE WITH CERAMIC PANELS: unscrew the cover. Remove the right and left ceramic panels from their seats.
  STOVE WITH METAL SIDES: unscrew the cover. Unscrew the right and left side panels and remove them from their seats.
- Remove the rear filter, the internal protection grille and the inspection panel. For re-assembly, remember the lower grille slot-in.
- After these operations you can have access at the following components: geared motor, ignition plug, ambient fan, fume fan, ambient probe, fume probe, thermostat, mother board, pressostat.
- For auger replacement and/or cleaning, it is necessary to unscrew the three bolt of the geared motor and unthread it, unscrew the two screw under the geared motor of the auger, extract the hand protection inside the hopper and then unscrew the bolt inside the auger. To reassemble all proceed opposite.

#### 14.2 FEATURES

DESCRIPTION	MARTINA 10 kW	VANESSA 10 kW	ALESSIA 10 kW	SOLARIS 10 kW
WIDTH	57 cm	55,7 cm	50 cm	52,6 cm
DEPTH	52 cm	52,1 cm	50,5 cm	53,6 cm
HEIGHT	98 cm	98,6 cm	98 cm	121,6 cm
WEIGHT	97,2 - 107 - 139 kg	133 kg	89,8 kg	143 kg
INTRODUCED THERMIC POWER (Min/Max)	5,5 - 11,8 kW	5,5 - 11,8 kW	5,5 - 11,8 kW	5,3 - 12,3 kW
NOMINAL THERMIC POWER (Min/Max)	4,8 - 10 kW	4,8 - 10 kW	4,8 - 10 kW	3,8 - 10 kW
EFICIENCY (Min/Max)	87,5 - 85,1 %	87,5 - 85,1 %	87,5 - 85,1 %	72 - 81,5 %
FUME TEMPERATURE (Min/Max)	133 - 215 °C	133 - 215 °C	133 - 215 °C	176 - 266 °C
FUME MAXIMUM LOADING CAPACITY (Min/Max)	5,8 - 8,2 g/s	5,8 - 8,2 g/s	5,8 - 8,2 g/s	9,94 - 9,38 g/s
CO EMISSIONS (13% O <sub>2</sub> ) (Min/Max)	0,024 - 0,016 %	0,024 - 0,016 %	0,024 - 0,016 %	0,034 - 0,015 %
OGC EMISSIONS (13% O <sub>2</sub> )	2 mg/Nm <sup>3</sup>	2 mg/Nm <sup>3</sup>	2 mg/Nm <sup>3</sup>	-
$NO_{\chi}$ EMISSIONS (13% $O_{2}$ )	119 mg/Nm <sup>3</sup>	119 mg/Nm <sup>3</sup>	119 mg/Nm <sup>3</sup>	-
CO <sub>2</sub> EMISSIONS (Min/Max)	-	-	-	2,49 - 5,11 %
Medium CO CONTENTS at 13% O <sub>2</sub> (Min/Max)	306 - 205 mg/Nm <sup>3</sup>	306 - 205 mg/Nm <sup>3</sup>	306 - 205 mg/Nm <sup>3</sup>	424 - 191 mg/Nm <sup>3</sup>
Medium POWDER CONTENTS at 13% $\rm O_2$ (Max)	18 mg/Nm <sup>3</sup>	18 mg/Nm <sup>3</sup>	18 mg/Nm <sup>3</sup>	29 mg/Nm <sup>3</sup>
CHIMNEY DEPRESSION (Min/Max)	11 - 12 Pa	11 - 12 Pa	11 - 12 Pa	10 - 11 Pa
MINIMUM SAFETY DISTANCE from flammable materials	300 mm	300 mm	300 mm	200 mm
ON SHARED CHIMNEY FLUE	NO	NO	NO	NO
FUME OUTLET DIAMETER	Ø80 mm	Ø80 mm	Ø80 mm	Ø80 mm
COMBUSTIBLE	Pellet Ø6-7 mm	Pellet Ø6-7 mm	Pellet Ø6-7 mm	Pellet Ø6-7 mm
PELLETS HEATING VALUE	5 kWh/kg	5 kWh/kg	5 kWh/kg	5 kWh/kg
PELLETS HUMIDITY	≤ 10%	≤ 10%	≤ 10%	≤ 10%
HEATING VOLUME 18/20°C Coeff. 0,045 kW (Min/Max)	115 - 240 m <sup>3</sup>	115 - 240 m <sup>3</sup>	115 - 240 m <sup>3</sup>	91 - 240 m <sup>3</sup>
HOURLY CONSUMPTION (Min/Max)	1,20 - 2,50 kg/h	1,20 - 2,50 kg/h	1,20 - 2,50 kg/h	1 - 2,63 kg/h
HOPPER CAPACITY	18 kg	18 kg	18 kg	26 kg
RANGE (Min/Max)	15 - 7,2 h	15 - 7,2 h	15 - 7,2 h	26 - 9,9 h
SUPPLY	230 V - 50 Hz			
POWER INPUT (Max)	370 W	370 W	370 W	370 W
INGNITER RESISTANCE POWER INPUT	300 W	300 W	300 W	300 W
MINIMUM EXTERNAL AIR INLET (last effective area)	80 cm <sup>2</sup>	80 cm <sup>2</sup>	80 cm <sup>2</sup>	80 cm <sup>2</sup>
STOVE WITH SEALED CHAMBER	NO	NO	NO	NO
EXTERNAL AIR INLET FOR SEALED CHAMBER	-	-	-	-

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#### PELLET STOVES · WOOD STOVES · WOOD COOKING STOVES THERMOSTOVES · PELLET FIREPLACE INSERTS

#### PELLETKACHELS · HOUTKACHELS · HOUTKEUKENS THERMOKACHEL · OPEN HAARD PELLETS

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