



K1200 - K1700- K2300

Wood Pellet Boiler Stove



Installation and Operating Instructions

Read these instructions carefully before installing, using and servicing the stove.



Contents

1	SETTING THE LANGUAGE FOR THE FIRST TIME	4
2	STANLEY PELLET STOVE WARRANTY.....	5
3	PACKAGE CONTENT	6
3.1	UNPACKING THE FREE-STANDING FIRE	6
4	SAFETY PRECAUTIONS.....	6
4.1	FOR YOUR SAFETY, WE RECOMMEND THAT:	7
5	TECHNICAL SPECIFICATIONS.....	8
6	INSTALLATION OF THE BOILER PELLET STOVE.....	11
6.1	K1200 ASSEMBLY OF REMOVABLE PARTS.....	12
6.2	K1700 & K2300 ASSEMBLY OF REMOVABLE PARTS	13
7	INSTALLATION REQUIREMENTS	14
7.1	INSTALLATION OF DUCTS AND FUME EXTRACTION SYSTEMS:.....	14
7.2	INSTALLATION WITHOUT A CHIMNEY.....	14
7.3	INSTALLATION WITH A CHIMNEY	15
7.4	HYDRONIC INSTALLATION	16
8	FUEL	16
9	USE OF THE BOILER PELLET STOVE.....	17
9.1	REMOTE CONTROL AND DISPLAY	18
9.2	DISPLAY INFORMATION SUMMARY.....	19
9.2.1	<i>Menu</i>	<i>19</i>
9.2.2	<i>Water temperature.....</i>	<i>19</i>
9.2.3	<i>Date/Time.....</i>	<i>19</i>
9.2.4	<i>Timer.....</i>	<i>21</i>
9.2.5	<i>Sleep.....</i>	<i>22</i>
9.3	CONFIGURATION MENU	22
9.4	USER INFO	25
10	START-UP	26
10.1	STOP	26
10.2	TURNING OFF THE STOVE	26
10.3	FILLING THE PELLET RESERVOIR	27
11	MAINTENANCE.....	28
11.1	WEEKLY MAINTENANCE K1200 MODEL.....	28
11.2	WEEKLY MAINTENANCE K1700 & K2300.	29
11.3	ADDITIONAL CLEANING K1200	30
11.4	K1700/ K2300	32
11.5	CLEANING THE GLASS.....	33
12	ALARMS / FAILURES / RECOMMENDATION LIST.....	34
12.1	ALARMS	34
12.2	- FAILURES	34
13	EXPLODED VIEWS.....	35
14	ELECTRICAL.....	41
14.1	ELECTRICAL DIAGRAM OF THE BOILER PELLET STOVE.....	41
14.2	REMOTE SWITCHED CONNECTION.	41

15	CIRCULATION PUMP.....	42
15.1	PERFORMANCE GRAPHS FOR THE UPSO 15-70 130MM CIRCULATING PUMP.....	42
FIGURE 46 – PERFORMANCE GRAPHS FOR THE CIRCULATING PUMP.....		42
15.2	CIRCULATING PUMP USER INTERFACE	42
15.3	CHANGING THE SETTING OF THE PUMP	42
16	INSTALLATION DIAGRAMS	44
17	LIFE CYCLE OF A BOILER PELLET STOVE	48
18	ANNEXES.....	48

Thank you for purchasing a Waterford Stanley Wood pellet Stove.

Please read this manual carefully and retain it for future reference.

These products fulfil the requirements of the Construction Products Regulation and have been approved with the CE conformity mark;

The Boiler pellet stoves are manufactured in compliance with the EN 14785:2008 Standards

WATERFORD STANLEY bears no responsibility for any damage to the stove if it is installed by non-qualified personnel;

WATERFORD STANLEY is not responsible for any damage to stoves not installed and used in compliance to the instructions included in this manual;

All local regulations, national and European standards, must be observed when installing, operating and servicing the stove;

Whenever you need assistance, you should contact your stove's supplier or installer. You must have the wood pellet stove serial number located on the identification plate.

The product must be commissioned by a Waterford Stanley approved service engineer.

1 Setting the Language for the first time.

To set the Language to English on the controller.

Press the menu button until **ó set** is displayed beside the menu button.

Press the **ó +** button 4 times , display shows **óconfigura.....**.

Press the set button twice until abbreviation for languages in the top and centre of the screen.

Press the **ó +** button until abbreviation **óEN** is displayed.

Press the Menu button to set the language to English.

2 STANLEY PELLET STOVE WARRANTY

CONDITIONS OF WARRANTY

Your Stanley pellet stove is guaranteed against any part that fails (under normal operating conditions) as detailed in the following table with timelines specified from the date of installation of the appliance. If the stove is not installed within six months of date of purchase, the warranty will commence six months from the date of purchase.

Warranty Period	Parts Covered (Parts & Labour unless Stated)
Up to 1 Year	• Refractory materials (supply only) • Rope seals, glass seals and cement seals. • Surface Finish on Seno models. • Grates and fire bars. • Ceramic glass is covered for Thermal breakage (supply only). • Rust (if reported before installation) • Aesthetic Damage (provided reported on date of receipt) • Electrical components under normal operation.
Up to 2 Years	• All external casings & enamel finishes (excluding impact damage or damage caused by overfiring). Pictures of damage must be submitted to WS Service Department.
Up to 3 Years	• Boiler - A Leaking Boiler Report must be conducted by an Authorised Stanley Service Engineer and submitted to WS Service Department for review.

All warranty claims must be reported to the Waterford Stanley Service Department and must be submitted with the product serial number (located on the data plaque at the rear of the product), date of purchase, proof of purchase (if requested) and details of the specific nature of the problem.

The warranty is given only to the original consumer/purchaser only and is non-transferable. The appliance must be installed by a suitable qualified person and installed as per the requirements of the manual. Failure to comply with the Installation requirements or Building Regulations will void your warranty. Waterford Stanley reserve the right to replace any part due to manufacturing defect that fails within the warranty period under the terms of the warranty. The stove must be used for normal domestic purposes only and in accordance with manufacturer's operation instructions.

LIMITS OF LIABILITY

The warranty does not cover:

- Special, incidental or consequential damages, injury to persons or Property, or any other consequential loss.
- Any issue caused by negligence, misuse, abuse or circumstances beyond Waterford Stanley's control.
- Any issue with wear and tear, modification, alteration, or servicing by anyone other than an authorized service engineer.
- Installation and operational related problems such as draught related issues external to the stove, inadequate venting or ventilation, excessive flue offsets, negative air pressure caused by insufficient burning of improper fuel.
- Damage caused to the stove while in transit.
- Discolouration due to over firing, damage caused by impact, damage to baffles caused by over firing and fading of surface finish on casting.
- Stress fractures on bricks.
- Rust on cast iron parts unless reported prior to stove being installed.
- Aesthetic damage, rust & missing parts on stoves purchased off display.
- Electrical components where voltage variations are in excess of 10% of nominal 230V

Note: Adequate clearance must be maintained around the appliance to ensure the ease of part removal in the possible event of their damage/failure. Waterford Stanley are not responsible for any costs incurred in the removal of items installed in the vicinity of the appliance that must be moved to facilitate a part replacement.

3 Package content

- Boiler pellet stove model K1700 & K2300
- Side covers, top front cover and bottom front cover
- Instruction Manual & Power cable

3.1 Unpacking the free-standing fire

To unpack the unit, remove the retractable bag containing the cardboard box. Then pull the cardboard box out by lifting it, to remove the bag containing the unit and the polystyrene plates. To complete the procedure, unscrew the four brackets that secure the unit to the wood pallet (**Error! Reference source not found.**).



Figure 1 – Unpacking the unit

4 Safety precautions

Waterford Stanley is not liable for any damages to the stove if the specified precautions, warnings and operating procedures are not followed.

Waterford Stanley stoves are easy to operate and special attention was given to their components in order to protect users and installers against accidental damages.

The stoves must only be installed by a qualified installer, who should supply the client with a relevant statement of conformity and who shall be liable for the final installation and consequent product good operating conditions.

This stove must be used according to its intended use as specified by the manufacturer. The manufacturer is excluded from all liability, by contract or by tort, caused by injury to people, animals or property arising from misuse or faulty installation or servicing. After removing the packaging, verify the contents to check their integrity and completeness. If the content of the package fails to correspond to that indicated in point 1, contact the salesperson from whom you purchased the stove.

All the stove's components guarantee its operation and energy efficiency and should only be replaced with original parts provided by an authorised technical assistance centre.

The stove must be serviced at least once a year by the installation engineer. This manual is provided with the product. Please keep it close to the stove.

4.1 For your safety, we recommend that:

- Make sure you fully read and understand this instruction manual before using the boiler pellet stove as a biomass heating stove.
-
- Make sure that the hydronic/ plumbing circuit was correctly assembled and connected to the water supply before turning on the boiler pellet stove.
-
- The boiler pellet stove is not intended for use by children or persons with reduced physical, sensory or mental capabilities,
-
- or lack of experience or knowledge, unless they are under supervision or have been instructed concerning the use of the stove.
-
- Do not touch the stove if any part of your body is wet or humid;
-
- Do not tamper with safety or adjustment features without the manufacturer's authorization;
-
- Do not cover or reduce the size of the vents at the installation area;
-
- The boiler pellet stove requires a clear space around the stove for proper combustion, so possible air tightness of the location or any existing air extraction sources in the room may prevent the correct operation of the stove ;
- The stove must have adequate air supply to support combustion.
-
- Do not leave the packing materials near children;
-
- During normal operation, Free Standing Fire stove's door must not be opened;
-
- Some parts of the stove will become hot during normal operation, so avoid direct contact with parts such as the door handle and glass;
-
- Check the existence of any obstructions on the fume duct before turning on the stove after a long period of inactivity;
-
- This boiler pellet stove is intended for residential use in protected areas. Safety systems may turn off the stove. If this occurs, contact the technical assistance. In any circumstances should you attempt to interfere with the safety systems;
-
- The boiler pellet stove is a biomass heating stove equipped with an electric fume extractor. The occurrence of any power failure shut off the exhaust fan, the product must be connected to a naturally vented chimney/ flue to exhaust the remaining flue gases.
-
- During operation, NEVER turn off the free-standing fire stove by disconnecting the electric plug. The fume extractor on the free-standing pellet fire stove is electric so disconnecting the power plug will prevent the extraction of combustion flue gases;
-
- Your stove must be disconnected from the mains for servicing. Before doing this, the stove must be totally cooled down (if operating before);
-
- Never touch the interior of the stove without disconnecting it from the power mains;
-
- The maximum temperature of the water that can be set by the user (water set-point temperature) is 80°C. In the event of a temperature of 90°C being reached, the boiler pellet stove automatically disconnects, and the respective alarm is activated.

5 Technical specifications

FEATURES	K1200	K1700	K2300	Units
Weight	185	202	219	Kg
Height	1110	1150	1210	mm
Width	615	600	665	mm
Depth	675	655	730	mm
Diameter of the flue pipe	80	100	100	mm
Reservoir capacity	30	30	45	Kg
Maximum heating capacity	284	384	520	m ³
Maximum Heat Output to boiler	10.3	14.2	18.8	kW
Maximum Heat Output to room	2.2	3	3.3	kW
Minimum Heat output to boiler	4.1	4.3	4.3	kW
Minimum Heat output to room	1.2	0.8	0.8	kW
Minimum fuel consumption	1.1	1.1	1.1	Kg/h
Maximum fuel consumption	2.76	3.9	5.1	Kg/h
Rated electrical current	100	134	134	W
Electric power at start-up (<10 min.)	406	434	434	W
Rated voltage	230	230	230	V
Nominal frequency	50	50	50	Hz
Efficiency @ nominal input.	94.3	91.1	89.2	%
Efficiency @ reduced input.	96.35	93.8	93.8	%
Combustion gas flow (max.)	10.2	14.8	18.8	g/s
Combustion gas flow (min.)	4.7	6.9	6.9	g/s
Max. flue gas temperature	93	128	153	°C
Min. flue gas temperature	64	66	66	°C
CO emissions at rated thermal power	0.016	0.02	0.02	%
CO emissions at reduced thermal power	0.027	0.024	0.024	%
Flue draught	12	12	12	Pa
Stove water volume	19	22	22	W
Sound level max.	49.1	49.1	49.1	dB(A)

Tests performed using wood pellets with a heating capacity of 4.9 kWh/kg. The above information was obtained during product homologation tests performed at independent laboratories accredited for pellet stove tests.

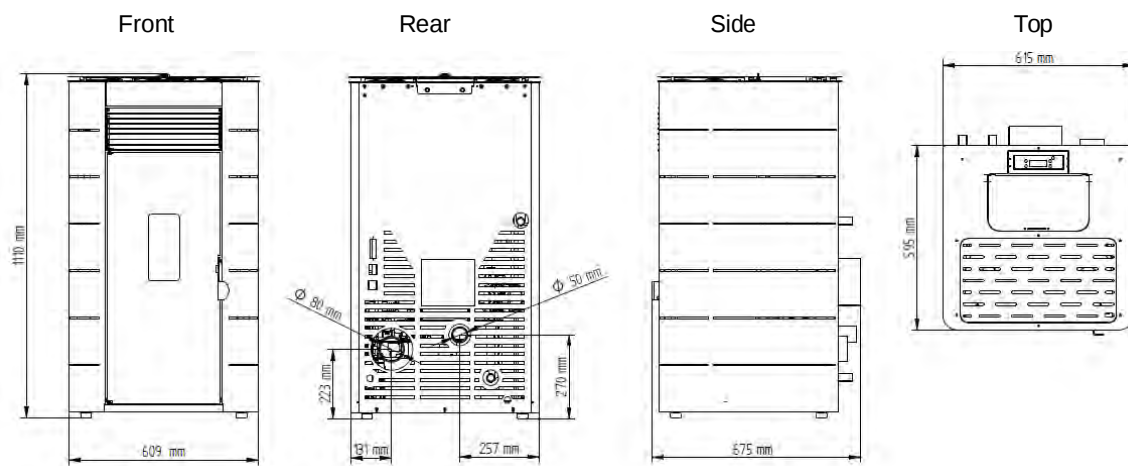


Figure 2 Dimensions of the K1200

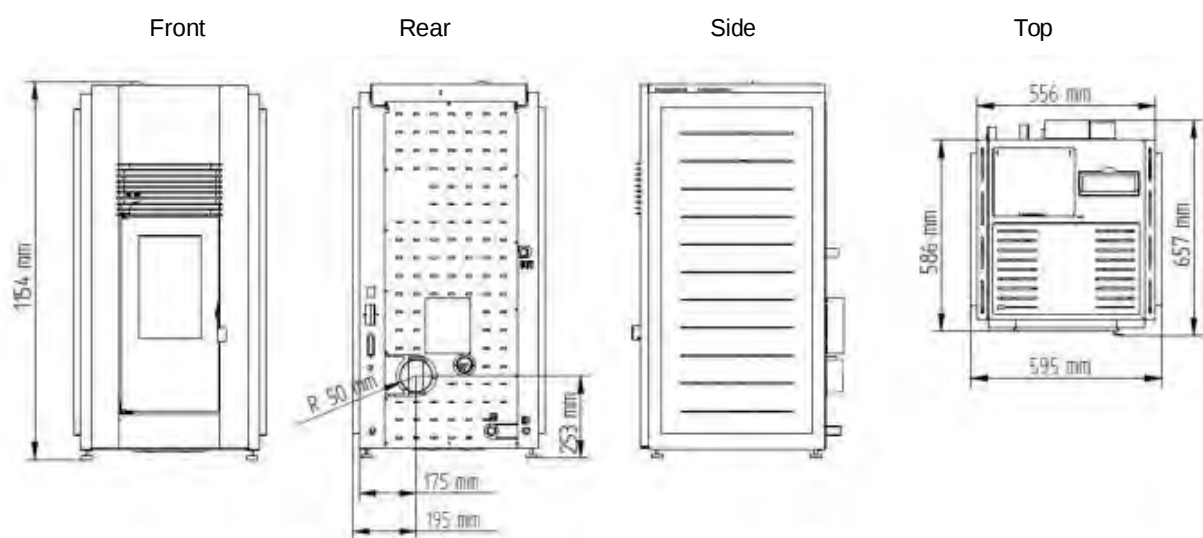


Figure 3 Dimensions of the K1700

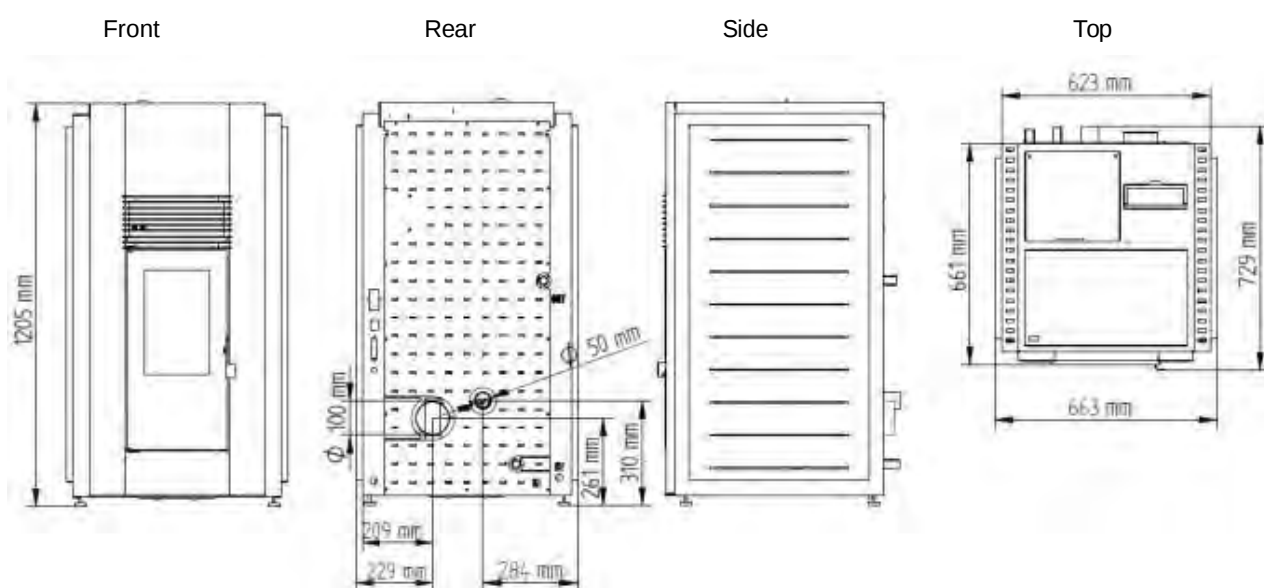


Figure 4 Dimensions of the K2300

Technical drawing of the rear panel of the K1200 boiler, showing dimensions and connection points. The drawing includes the following labels and dimensions:

- Water outlet 3/4"**: Indicated by a red arrow pointing to the top right connection.
- Water inlet 3/4"**: Indicated by a blue arrow pointing to the bottom right connection.
- Water filling**: Indicated by a purple arrow pointing to the bottom right connection.
- Fume exhaust $\phi 80$ mm**: Indicated by a black arrow pointing to the central circular exhaust port.
- Safety valve 1/2"**: Indicated by a green arrow pointing to the bottom left connection.
- Dimensions**:
 - Overall width: 135
 - Overall height: 634
 - Distance from top edge to water outlet: 64
 - Distance from bottom edge to water inlet: 60
 - Distance from left edge to fume exhaust: 130
 - Distance from left edge to safety valve: 67
 - Distance from fume exhaust to water inlet: 107
 - Distance from water inlet to water filling: 160
 - Distance from water inlet to safety valve: 223

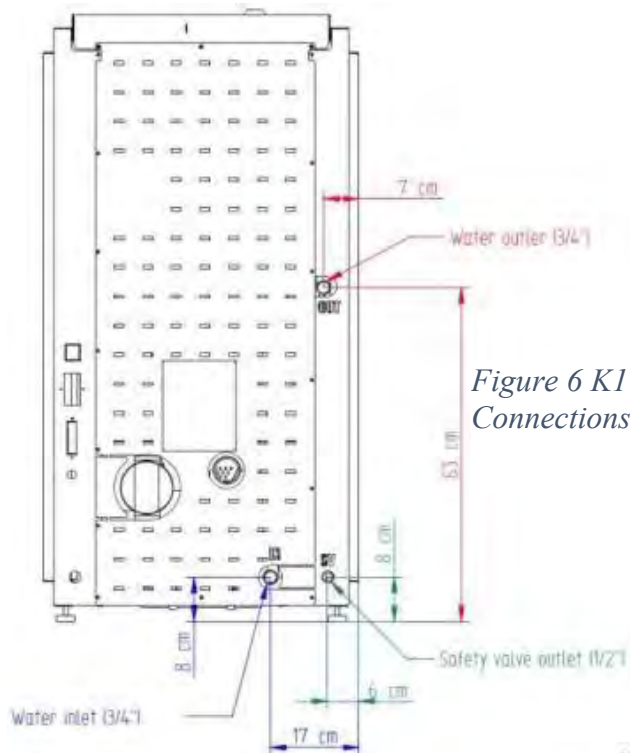
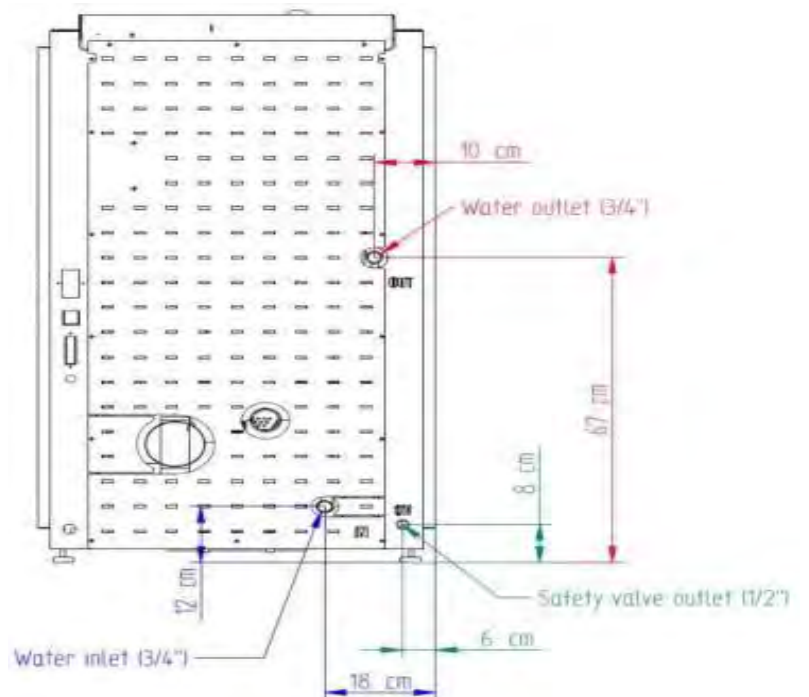


Figure 7 k2300
Connections



6 Installation of the boiler pellet stove

Before installing, please perform the following steps:

- Upon receipt, check that the product is complete and that there are no signs of damage. Any damage or defects should be checked for prior to installing the product. If there are defects please notify Waterford Stanley service department.
- The stove is equipped with four adjustable height feet at the base which allow for a simple adjustment when installed on a unlevel surface.



Figure 8 ñ Adjustable feet

- Remove the instruction manual from the package and hand it over to the client.
- Connect the flue, the K1200 requires an 80mm diameter flue connection, while the K1700 & K2300 require a 100mm diameter flue from the flue outlet to a cleaning Tee , it should be connected to a 125mm flue/ chimney liner.
- If a pipe is used for combustion air inlet from the outside, it shall be no longer than 60cm horizontally, there should be no bends or offsets.
- Perform the hydronic installation
- Connect the 230VAC power cable to a grounded socket.
- The surface of the stove where the hot air outlet is located must be facing the area to be heated.

6.1 K1200 Assembly of removable parts

Installing the Casings

Before installing the casings, you should check if the package is complete and in good condition. Any possible damage or missing elements should be reported before proceeding with the installation.

This section describes how to install the casings for the k1200 Stove.

To install the casings, the installer must have available:



Star shaped
screwdriver
PH2 screw

Figure 9 Material required to install the casings

IMPORTANT NOTICE: Before installing the casings, it is required that the unit is electrically isolated (unplugged).

To assemble some of this models, each kit must include the following parts

K1200 (Claret, White or Black)

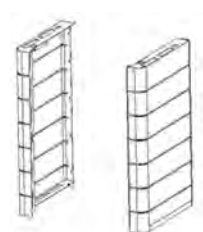


Figure 10, 12kW Colours.

K1200, 12kW Oak

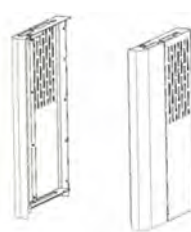


Figure 11, 12kW Oak.

The covers should be placed on the pillars and grille slots identified in Figures 12 & 13. The screw placed in the stove body must be removed and tightened after placing the side cover as shown in Figure 14.

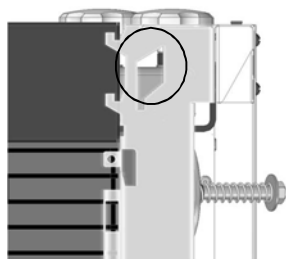


Figure 12



Figure 13

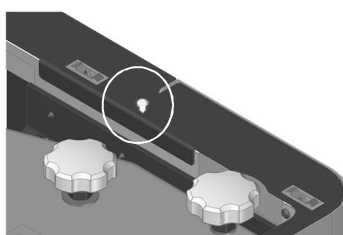


Figure 14 screw to secure covers

6.2 K1700 & K2300 Assembly of removable parts

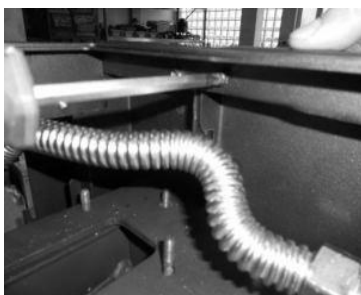
After the installation, the stove should be fitted with the removable covers.

- Top front cover

To install the top front cover, place it over the stove (Figure-8a) and then tighten the screws that secure it to the top panel of the stove (Figure 8b).



15a

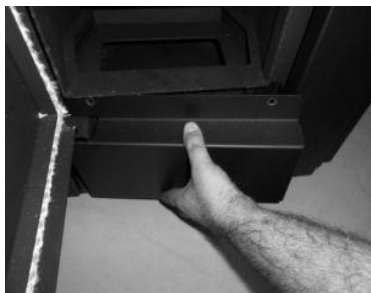


15b

Figure 15 ñ Assembly of the top front cover

- Bottom front cover

The bottom front cover can be assembled by removing the screws located on the bottom part of the stove. Then place the part in the appropriate position (Figure 9-a) and replace and tighten the screws again (Figure 9-b)



16a



16b

Figure 16 ñ Assembly of the bottom front cover

- Side covers

To install the stove's side covers position the covers and insert them as illustrated, onto the existing supports.



Figure 17 ñ Assembly of side covers

7 Installation requirements

The minimum distance between the free-standing pellet fire stove and particularly flammable surfaces is specified in Figure 17.

The top of the stove must be at least 100cm separated from the ceiling, especially in rooms with ceilings consisting of flammable materials.

The base supporting the stove cannot be made of combustible material (e.g. carpet), so make sure you use an adequate protection.

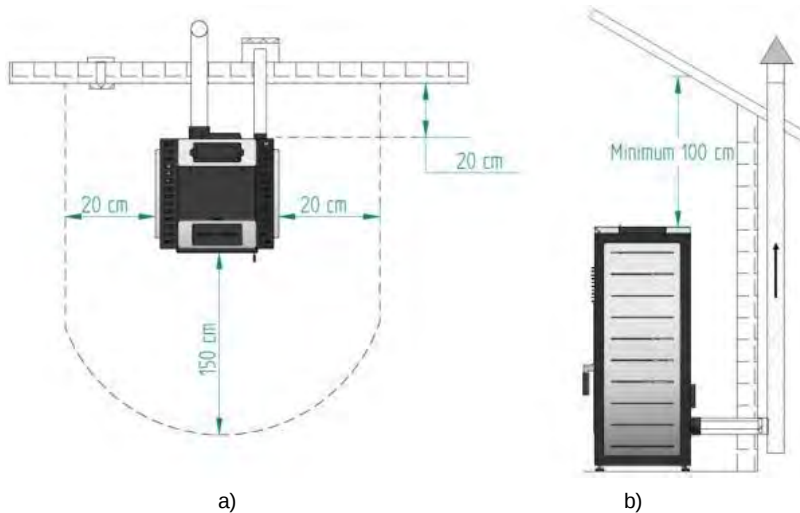


Figure 18 ñ Clearances to combustibles: a) plan view of the stove's installation; b) side view of the stove's installation

7.1 Installation of ducts and fume extraction systems:

- The exhaust pipe must have been designed for this purpose, in compliance to the location requirements and in accordance with any applicable regulations.
-  An inspection-T with an airtight lid must be attached to the exhaust pipe of the stove to allow the regular inspection of the system or discharge of heavy dust and condensates. As indicated in Figure 17, the exhaust pipe must be assembled to allow cleaning and maintenance of the pipe by inserting inspection points.
- Under normal operating conditions, the combustion gas flow should create a draught of 12 Pa one meter above the chimney neck.
- The stove must not be installed in a shared chimney
- Pipes outside the heated area must be suitably insulated

7.2 Installation without a chimney

The installation of the boiler pellet stove without a chimney should be performed as illustrated in Figures 19 / 20, with 80/100 mm diameter flue pipe up to the Tee piece, externally twin wall insulated stainless-steel pipes must be used and properly fastened to avoid condensation.

A blank plug must be installed at the base of the Tee section pipe to allow periodic inspections and annual maintenance, as illustrated in Figure 20.

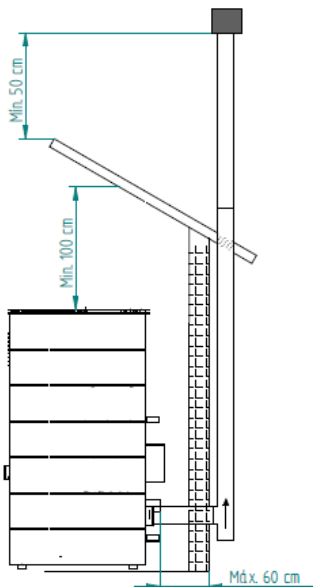


Figure 19, K1200 Installation side view.

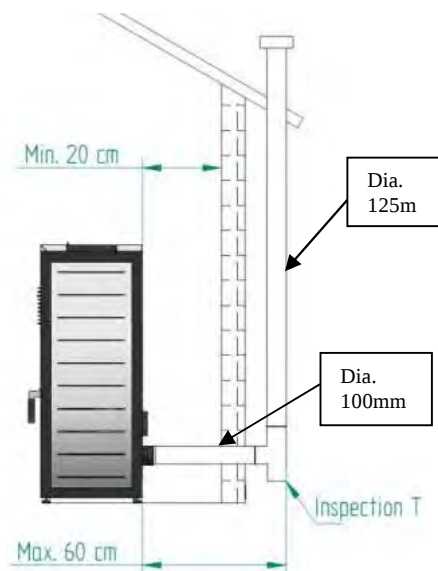


Figure 20, K1700/ 2300 Installation side view

c

! Failure to comply with these requirements may prevent the correct operation of the stove. Follow all the instructions presented on the diagrams.

! The pellet stove operates with the combustion chamber in vacuum, so it is necessary to have a fume exhaust pipe to extract combustion gases properly.

All material used to flue the product must comply with current Building regulations.

Insulation: The flue must be double-walled and insulated to make sure that flue gases do not cool down going outwards, which would cause an inadequate circulation and condensation that may damage the stove.

Windproof terminal: A windproof terminal must always be installed to avoid the backflow of flue gases.

Draught in the chimney. All installation must guarantee a draught of 12 Pa (0.12mbars) measured when hot and at the maximum power.

Ventilation: The stove must have adequate air for combustion and the room must have adequate air for ventilation, adequate air supply must be provided in line with building regulations. The boiler pellet stove has a circular pipe ($\varnothing$ 50mm) that may be connected to the exterior of the house. An outside air kit and adaptor from 50-100 is available to order from Waterford Stanley.

This product should not be installed in the same room as an extractor fan. A spillage test should be undertaken where the product is installed in a room adjacent to a room with an extractor fan.

7.3 Installation with a chimney

If the stove is to be installed in a chimney with a flue pipe of appropriate diameter direct to the stove. The chimney should be lined with a 125mm flexible liner suitable for use with solid fuel.

A T-piece must be installed between the connection pipe and the 125mm flexi liner to allow for periodic inspection and annual maintenance. The installation must be completed with a windproof cowl recommended for use with pellet stoves.

If you do not use the stove for a long time, check it to make sure that the flue pipes are clear before lighting the fire.

7.4 Hydronic Installation

- * The chapter 16 (installation diagrams) contains the optional connection diagrams for central heating installations, with or without water heating for household use;
- * The boiler model pellet stove is equipped with a circulating pump, an expansion vessel (6 litre volume in the K1200 & K1700 models, 10 litre volume in the K2300 model) and a 3-bar safety valve; A calculation must be made in each individual installation to check the required size of the expansion vessel and additional vessel added if required.
- * The product must be installed on a sealed system. Operating pressure is between 1 and 1.5 bars;
- * To drain the boiler, attach a "T-tube" with a tap to the waste water drain the safety valve (3 bar) outlet must also be connected to the waste water drain;
- * The heating fluid must consist of water with a corrosion inhibitor non-toxic product added in the quantity recommended by the manufacturer. If the stove installation or the fluid pipes are installed in areas likely to freeze, the installation engineer must add the correct amount of antifreeze product recommended by the manufacturer to circulating fluid to avoid freezing at the estimated minimum temperature.

8 Fuel

The boiler pellet stove must be operated exclusively with pellets. No other fuel may be used.

Use only pellets certified by standard EN 14961-2 grade A1, with a

6 mm diameter and measuring **between 10 and 30 mm long**.

The pellets must not have a moisture content in excess of 8% . To guarantee a good combustion, the pellets must maintain these characteristics so they should be stored in a dry place.

The use of different pellets will reduce the efficiency of the stove and cause poor combustion.

You should always use certified pellets and must test a sample before buying large bulk loads.

The physical/chemical properties of the pellets (i.e. the calibre, friction, density and chemical composition) may vary within specific tolerances and according to each manufacturer. Please note that this may cause alterations to the feeding process and, consequently, the need for different doses (more or less pellets).

The stove allows the dose of pellets to be adjusted during start-up and at power levels by $\pm 25\%$



Warning : The stove must NOT be used as an incinerator

9 Use of the Boiler pellet stove

Recommendations

Before starting up the stove, please check the following:

- Guarantee that the stove is properly connected to the power mains using the 230VAC power cable.



Figure 21 ñ Electric power plug.

- Check to see whether the pellet reservoir is supplied with pellets. Inside the pellet reservoir is a safety grid to prevent users from reaching the worm screw.
- Ensure that before each lighting the burner is clear

 The stove's combustion chamber is made from iron plate and painted with high temperature-resistant paint, releasing flue gases during the first burning sessions due to paint curing.

Make sure that the hydraulic circuit was correctly assembled and is filled to the correct pressure.

The room where the stove is installed must have adequate ventilation for all air using appliances to work concurrently.

The Boiler pellet stove stoves have a probe for measuring the room temperature. This probe is attached to the grid on the rear panel (Figure 20). For a good reading of the room temperature, avoid the contact between the end of the probe and the stove chassis. You may also attach the probe to the wall beside the stove.



Figure 22 - Room temperature probe

9.1 Remote control and display

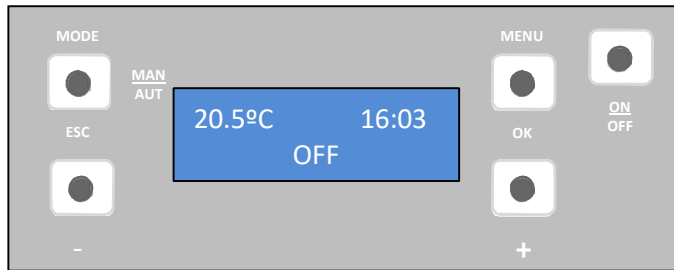


Figure 23 Remote control and display



a)



b)



c)

a) Key to toggle between manual and automatic mode and exit menus (esc).

b) Key to access menus and confirmation key (ok).

c) Key to start/stop the stove and reset error messages.



d)



e)

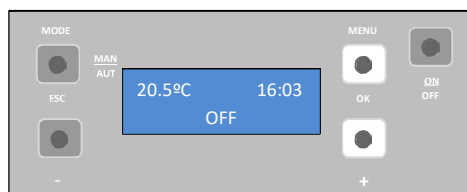
d) Key to scroll the menus to the left, or to reduce the set point

e) Key to scroll menus to the right or increase the set point

9.2 Display information summary

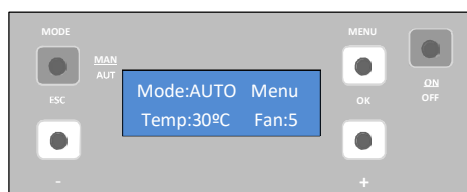
9.2.1 Menu

Menu indicating that the stove power is "off", the room temperature in °C and Time.



Selecting the operation mode: to select the operation mode, press the **MODE** key to select **MAN** for manual mode or **AUTO**

Note: For boiler models manual mode is unavailable.



“Auto” mode: in this mode, the stove shall be turned on at maximum power until reaching a temperature of 1°C above the temperature selected (set point temperature). Upon reaching the set temperature, the stove changes to minimum operating power.

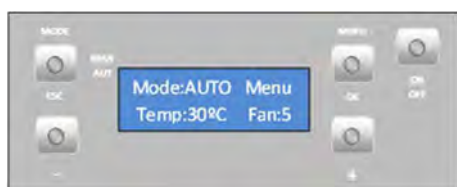
The set-point temperature can be set between 5 and 35°C by pressing the **-** key.

The **+** key allows the user to set the ventilation speed between 1-5 and automatic mode.

9.2.2 Water temperature

Press the Menu key twice to set the water temperature;

Water Temp. appears on the display. Press Set to adjust the set point.

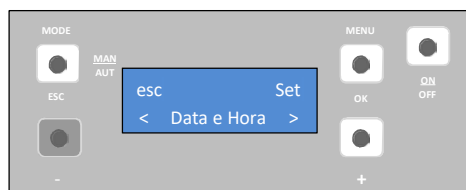


- Heating temperature

To set the desired **heating temperature** press **Set**. The display starts to flash. Press the **↑** or **↓** key to select the desired temperature and then **OK** to confirm.

9.2.3 Date/Time

To set the **date and time**: press the Menu key twice followed by the **↑**. **Day and Time** appears on the display. Press "set" to see the **Time** menu.



"

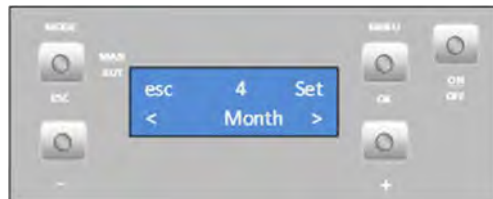
- Year

To set the **year** press Set The display starts to flash. Press the Up or Down key to select the desired year and then OK to confirm. Press "esc" to return to the " Date and Time " menu then "+" month menu. The Timer menu appears.



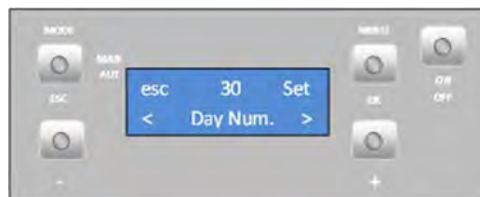
- Month

To set the **month** press Set The display starts to flash. Press the Up or Down key to select the desired month and then OK to confirm. Press the "+" key to go to the " date " menu.



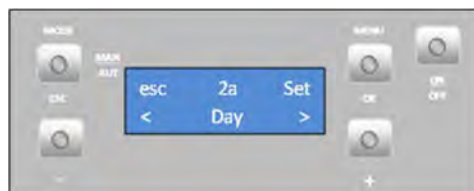
- Day of the month/ Date

To set the **date** press Set The display starts to flash. Press the Up or Down key to select the desired day and then OK to confirm. Press the "+" key to go to the " day of the week " menu.



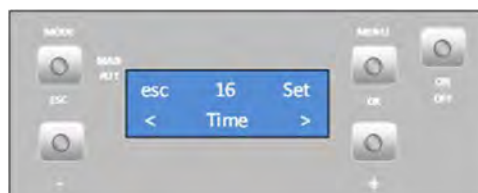
- Day

To set the **day of the week** press Set The display starts to flash. Press the Up or Down key to select the desired day and then OK to confirm. Press the "+" key to go to the "Time." (Day Number) menu.



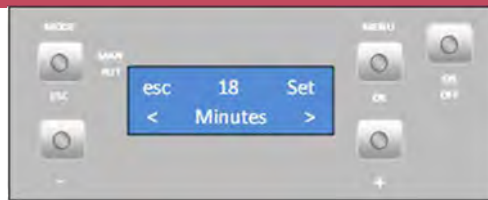
- Time

To set the **time** press Set The display starts to flash. Press the Up or Down key to select the desired time and then OK to confirm. Press the "+" key to go to the "Minutes



- Minutes

To set the **minutes** press Set The display starts to flash. Press the Up or Down key to select the desired minutes and then OK to confirm.

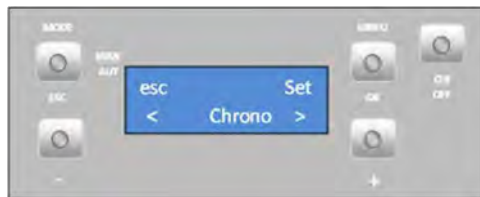


9.2.4 Timer

The stove is equipped with a timer that allows the stove to be turned on or off at a specified time.

Setting the timer/s

Step 1 Press the **óset** button twice followed by the **ó+** button to display **ó chrono**



Step 2 Press the **óset** button to display **ó enable**.

Step 3 Press the **ó+** button to scroll right, **óload profile** is displayed.

Step 4 Press the **ó+** button to scroll right, **óreset** is displayed.

Step 5 Press the **ó+** button to scroll right, **óprogram 1** is displayed.

Step 6 Press the **óset** button, **óenable** is displayed.

Step 7 Press the **ó+** button to scroll right, **óstart** is displayed, Press the **óset** button.

Step 8 Use **ó+** and **ó-** to adjust the **óstart** time. Followed by **ó ok** to confirm.

Step 9 Press the **ó+** button to scroll right, **óstop** is displayed, Press the **óset** button.

Step 10 Use **ó+** and **ó-** to adjust the **óstop** time. Followed by **ó ok** to confirm.

Step 11 Press the **ó+** button to scroll right, **óair temperature** is displayed, Press the **óset** button.

Step 12 Use **ó+** and **ó-** to adjust the **óair temperature**. Followed by **ó ok** to confirm.

Step 13 Press the **ó+** button to scroll right, **óair temperature** is displayed, Press the **óset** button.

Step 14 Use **ó+** and **ó-** to adjust the **óair temperature**. Followed by **ó ok** to confirm.

Step 15 Press the **ó+** button to scroll right, **ówater temperature** is displayed, Press the **óset** button.

Step 16 Use **ó+** and **ó-** to adjust the **ówater temperature**. Followed by **ó ok** to confirm.

Step 17 Press the **ó+** button to scroll right, **ófire** is displayed, Press the **óset** button.

Step 18 Use **ó+** and **ó-** to adjust the **ófire**. Followed by **ó ok** to confirm.

Step 17 Press the **ó+** button to scroll right, **óDays** is displayed, Press the **óset** button.

Step 18 Use **ó+** and **ó-** and **ó set** buttons to select the days which the program will run on.

Step 19. Return to steps 6 and steps 2 and set both of these to **óOn** to enable Program 1.

Repeat for Programs 2-6 as required.

Note,

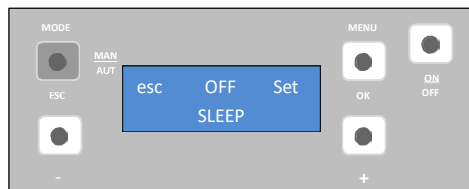
It is not possible to enable the timer until the programs are set.

Step 6 is to enable program 1.

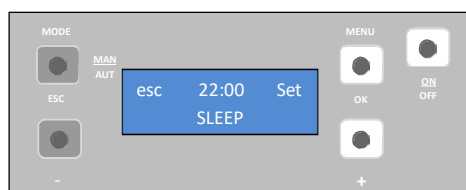
Step 2 is to enable the timer function.

9.2.5 Sleep

The "Sleep" menu allows you to setup the time you want the stove to turn off.



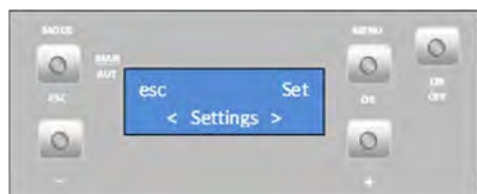
Press "set". The display starts to flash. Select the desired time using the "-" and "+" keys. After choosing the time, press "ok" to confirm. Press "esc" to return to the menu and "+" to go to the configuration menu.



9.3 Configuration menu

To change the **configurations** of the boiler pellet stove, press "set".

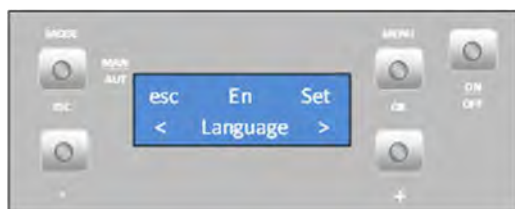
The "Língua" (Language) menu appears allowing you to select the language.



- Language

To select the **language**, press "set". Using the "+" or "-" keys, select the desired language (**Pt** = Portuguese; **Nl** = Dutch; **Gr** = Greek; **It** = Italian; **En** = English; **Fr** = French; **Es** = Spanish; **De** = German). Press "ok" to confirm.

Press the "+" key to go to the "eco" menu.



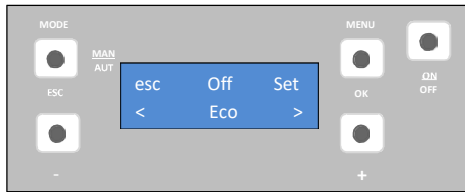
- Eco mode

If the stove is equipped with a thermostat that operates exclusively based on the temperature, the "eco mode" can be enabled to reduce the fuel consumption. In this mode, the stove operates at a set point temperature. The stove always runs at maximum operating power until it reaches a temperature (1°C) above the set point temperature. Upon reaching this temperature, the stove starts operating at minimum operating power for a preset time period. After this time has elapsed, the stove turns off. It remains off for another preset period of time. When the measured room temperature drops to a preset value, the stove turns on again at the maximum operating power.

This operation is only available in automatic mode.

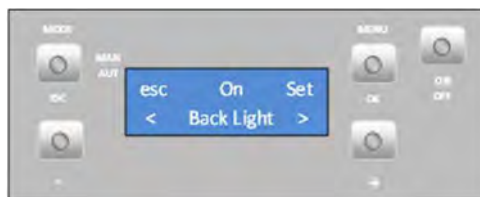
To activate the eco mode, press "set". The display starts to flash. Select "On" or "Off" using the "-" and "+" keys. Press "set" to confirm the selection.

Press "esc" to return to the previous menu and "+" to go to the (Lighting) menu.



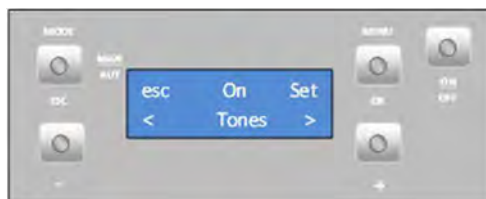
- Lighting

To select **lit screen**, press "set". The display starts to flash. Press the "+" or "-" key to select the time at which you want the screen to light up, or choose "On" to keep the light on at all times. Press "ok" to confirm. Press the "+" key to go to the (Tones) menu.



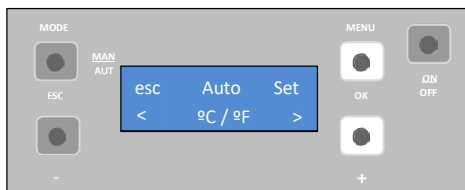
- Tones

To activate the **key tone**, press "set". The display starts to flash. Press the "+" or "-" key to select "On" or "Off". Press "ok" to confirm. Press the "+" key to go to the "°C/°F" menu.



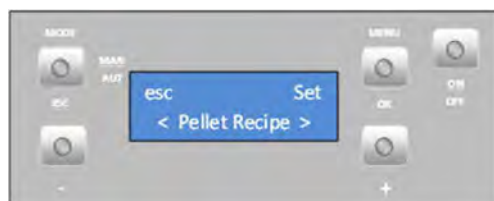
- Temperature stove (°C/°F)

To select **°C / °F**, press "set". The display starts to flash. Press the "+" or "-" key to select °C, °F or Auto and then "ok" to confirm. Press the "+" key to go to the "Pellet" (Pellet Qty) menu.



- Pellet quantity

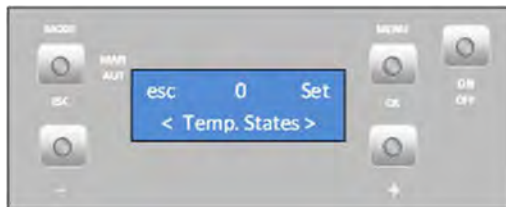
Press "set" to see the "(Temporary settings) menu.



- Temporary settings

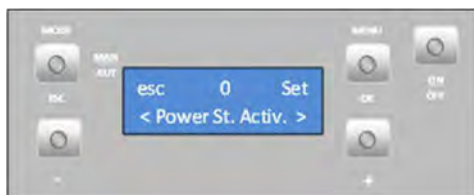
This feature allows you to increase or decrease by 25% **the quantity of pellets at start-up**. Press "set". The display starts to flash. Press "+" or "-" to increase or decrease (between -5 to +5), accordingly. Each stove must be multiplied by 5 to obtain

the correct percentage. Press "ok" to confirm. Press the "+" key to go to the " (Power settings) menu.



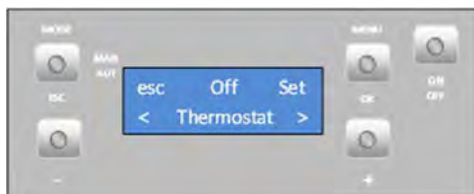
- Power settings

This feature allows you to increase or decrease by 25% the quantity of pellets at each power level. Press "set". The display starts to flash. Press "+" or "-" to increase or reduce (from -5 to +5), accordingly. Each stove must be multiplied by 5 to obtain the correct percentage. Press "ok" to confirm. Press "esc" to return to the (Pellet Qty) menu and "+" to go to the (Thermostat) menu.



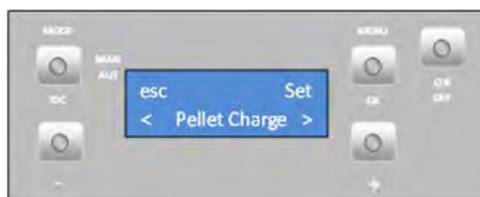
• Thermostat

This feature allows you to enable or disable the **room temperature thermostat**. Press "set". The display starts to flash. Press the "On" or "Off" key to select "On" or "Off" and then "ok" to confirm. Press the "+" key to go to the (Pellet loading) menu.



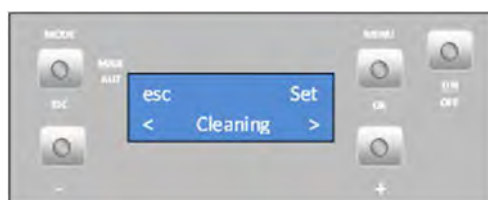
• Pellet loading

This feature allows you to enable the **worm drive** to fill the channel when it is empty to keep the stove running. Press "set"; the "ok" option appears. Press "ok" to activate the drive (the " (Activated) message appears) and "esc" to stop it. Press the "+" key to go to the (Cleaning) menu.



• Cleaning

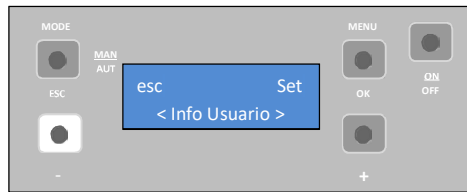
This feature allows you to **clean** the burning basket manually. Press "set"; the "ok" message appears. Press "ok" to start the cleaning; the " (Activated) message appears. When you wish to stop, press "ok". Press the "+" key to go to the (Technical) menu.



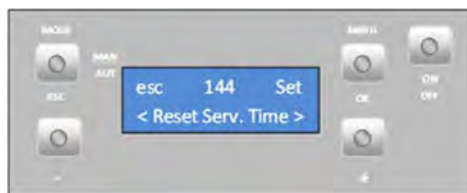
The technical menu is not available to the end user since it includes exclusively factory settings that must never be changed.

9.4 User Info

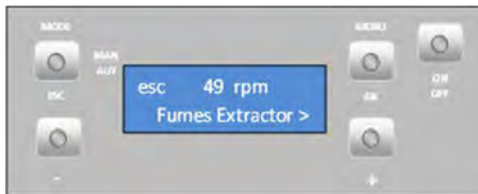
This menu contains some user information regarding the Free-Standing Fire stove. Press "set"; the " (File Code) menu appears. Display software/firmware code Press the "+" key to go to the (Operating Hours) menu.



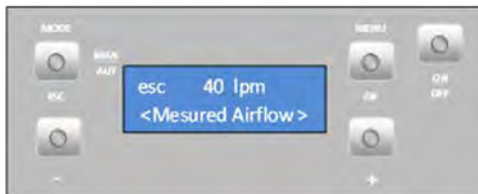
This menu shows for how many hours the stove has been operating.



Fume extractor operating speed (rotation per minute).



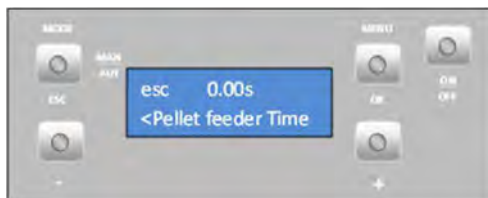
Airflow measured by the air probe.



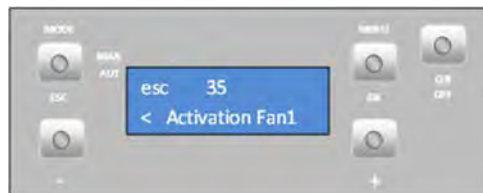
Fume temperature.



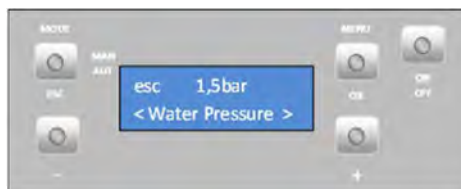
Worm drive rotation time ("On").



Ventilation power level.



Hydraulic circuit pressure



10 Start-up

To start operating the Boiler pellet stove, press the start/stop button for 3sec. The display should indicate " Lighting " until the completion of this phase.

The pellets will pass through the supply channel to the burning basket (combustion chamber), where they will be ignited using a heat resistor. This process may take between 5 and 10 minutes, depending on whether the worm screw used to push through the pellets has been previously filled with fuel or is empty. Upon completion of the ignition phase, the word "On" should appear on the display. The heating power can be adjusted at any time by pressing the power selection button for approximately 1 second.

Users can choose between five preset power levels. The selected power is indicated on the display. The initial power at each start-up will be correspond to the power level set before the last stop.

10.1 Stop

The stop sequence of the stove is started by pressing the start/stop key for 3sec.

Until this phase has been completed, the display will show (Disabling). The extractor will remain active until the fume temperature of 104°F (40°C) is reached, to guarantee that all the material has been burnt.

10.2 Turning off the stove

The stove should only be disconnected after stoppage.

Make sure that the display indicates "Off". If necessary, disconnect the power cable from the mains.

10.3 Filling the pellet reservoir



a)



b)

Figure 24

1 ñ Open the pellet reservoir lid at the top of the stove by sliding the bolt sideways, as shown in Figure 24.

2 ñ Pour the pellets into the reservoir, as shown in Figure 25.

.



Figure 25 ñ Refilling the pellet reservoir

3 - Turn on the stove and close the lid, pressing it down as shown in Figure 24-a.

11 Maintenance

The Waterford Stanley boiler model pellet stove requires careful maintenance. The most important thing is to remove the ash from the pellet burning area at regular intervals. This can be easily done by using a simple household vacuum cleaner. It should be cleaned after burning approximately 30kg of pellets.

Note: However, before cleaning, the power of the stove must be turned off and the stove should be cold enough to prevent accidents from occurring.

11.1 Weekly Maintenance K1200 model.

Remove the burning pot and the ash pan and vacuum both. The interior of the unit must also be cleaned by removing the top cover plate and cleaning the airflow pipes, as shown in Fig 27. Finally, assemble the parts in the reverse order to which they were removed and close the unit door.

To perform maintenance on the boiler model, clean the airflow pipes. To do this, raise the lid on the top of the unit and then lift the levers inside several times (Figure 26) to make the dirt accumulated inside the pipes fall out.

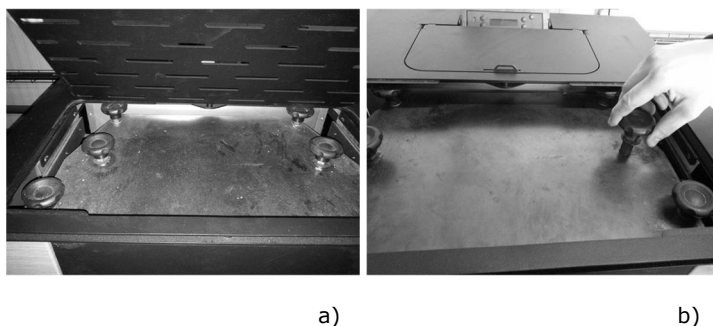
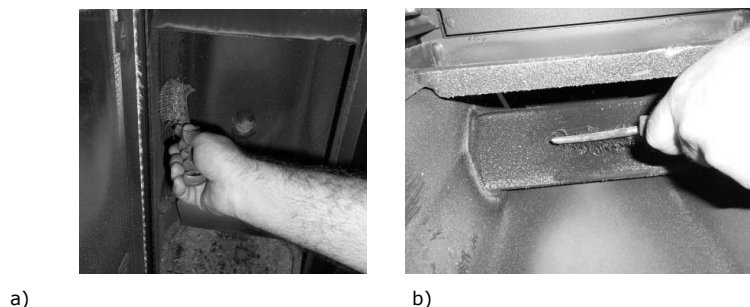


Figure 26 – Cleaning the turbulators

Then clean the inside of the unit using a steel brush on the surfaces where dirt has accumulated (Figure 27).



Then remove the burn pot (Figure 28-a) and the ash basket (Figure 28-b) and vacuum the ashes from both. The interior of the unit must also be cleaned by opening the hatch, as shown in figure. Finally, assemble the parts in the reverse to which they were removed and close the unit door.

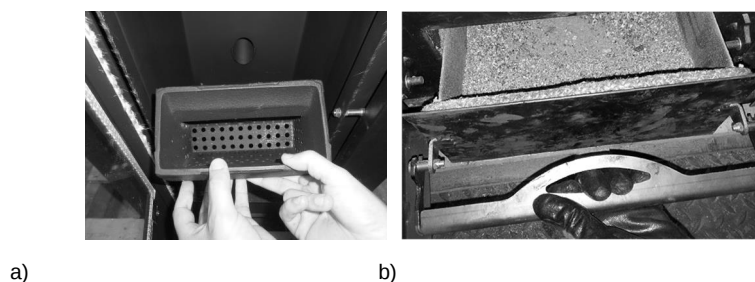


Figure 28 ñ a) Burning basket; b) Ash basket

⚠ WARNING! The maintenance task frequency depends on the quality of the pellets.

Note: See the warning label and read the maintenance instructions in chapter 12.

11.2 Weekly Maintenance K1700 & K2300.

To perform maintenance on the boiler model pellet stove, clean the airflow pipes. To do this, raise the lid on the top of the stove (Figure 29-a) and then turn (Figure 29-b) and lift the levers inside several times (Figure 29-c) to make the dirt accumulated inside the pipes fall out.



a)



b)



c)

Figure 29 ñ Cleaning the turbulators

Then clean the inside of the stove using a steel brush on the surfaces where dirt has accumulated (Figure 30).



a)



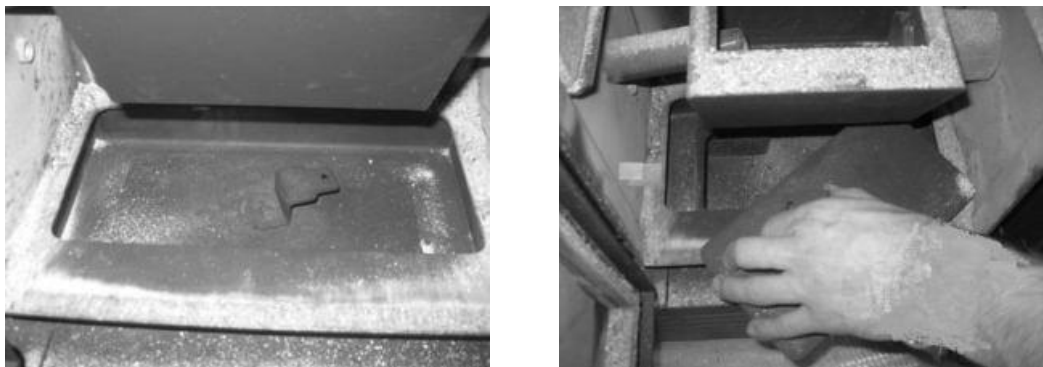
b)

Figure 30 ñ Cleaning the interior of the boiler model

The burning basket (Figure 31-a) and ash basket (Figure 31-b) must then be removed and the ash vacuumed from both. The interior of the stove must also be cleaned by opening the hatch, as shown in Figure 32. Finally, assemble the parts in the reverse to which they were removed and close the stove door.



a) b) c)
Figure 31 – a) Burning basket; b) Ash basket c) Cleaning the burn basket.



a) b)
Figure 32ñ Cleaning the interior of the stove

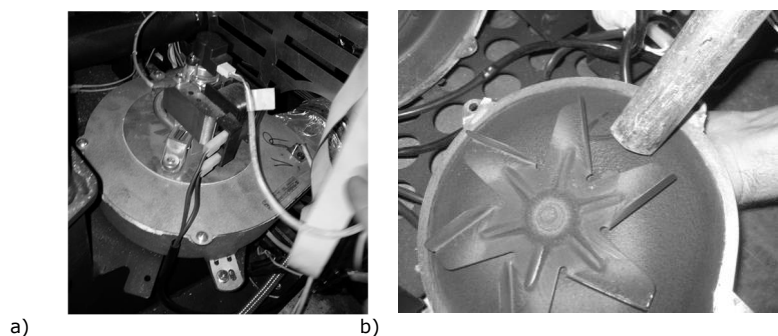
11.3 Additional cleaning K1200

Additional cleaning should be performed after every 600-800 kg of pellets consumed or once a year whichever comes first. Remove the side covers to access the side lids of the combustion chamber. To clean the interior of the unit, remove the lid and vacuum the ashes. Using a 20-25mm wide 80cm long steel brush thoroughly clean the fume ducts (33)



Figure 33 – Cleaning Vacuum the interior

If you notice that the fume extraction is not effective, we recommend cleaning the interior of the extractor with a vacuum cleaner, as shown in 34-a & b. At a minimum, this operation should be performed, at least, once a year.



a) b)
Figure 34 – a) Remove the screws; b) Remove the extractor

For the backboiler unit, the procedure involves cleaning the air flow pipes and turbulators. To do this, open the lid on the top of the unit (Figure 35-a and b) and remove the four sticks (Figure 35-c and 35-d). Then pull the turbulators up (Figure 35- e). A vacuum cleaner must be used to clean this area (Figure 35-f) and the interior of the pipes can be cleaned with a steel brush. The turbulators that are removed must also be cleaned with a steel brush.

To reinstall the turbulators, execute in reverse the above procedure shown in the figures.



Figure 35 – Cleaning of gas passageways and turbulators

11.4 K1700/ K2300

Additional cleaning should be performed after every 600-800 kg of pellets consumed or once a year whichever comes first. For the boiler stove, the procedure involves cleaning the air flow pipes and turbulators. To do this, open the lid on the top of the stove (Figure 36-a) and remove the six wing nuts securing each turbulator set (Figure 36-b and 36-c). Then pull the turbulators up (Figure 36- d/e). A vacuum cleaner must be used to clean this area (Figure 36-f) and the interior of the pipes (Figure 36-g) can be cleaned with a steel brush. The turbulators that are removed must also be cleaned with a steel brush (Figure 36-h).



a)



b)



c)



d)



e)



f)



g)



h)

Figure 36 ñ Cleaning the air flow pipes and turbulators

If flue gases are not being extracted properly, we recommend you clean heat exchanger and the extractor as shown in Figures 37 and 38. However, we recommend that you perform this procedure at least once a year.

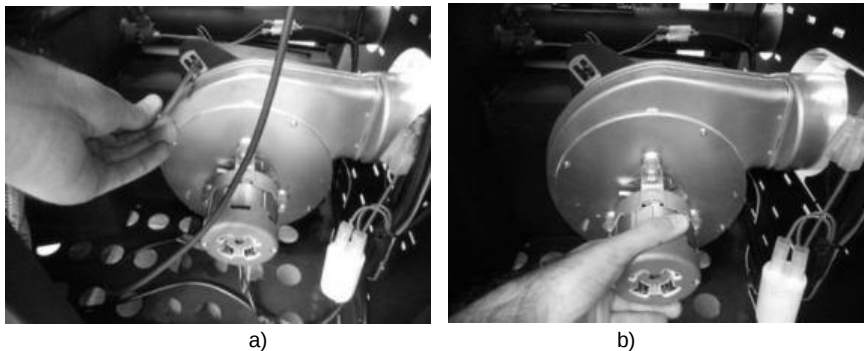


Figure 37 ñ a) Remove the screws; b) Remove the extractor



Figure 38 ñ Vacuum the air flow pipes

11.5 Cleaning the glass

The glass may only be cleaned with the stove completely cold, and using an appropriate product, as per the instructions for use. You should prevent the product from reaching the sealing ring and painted metal parts so that no undesirable oxidation occurs. The sealing ring is glued, so should not be exposed to moisture from water or cleaning products.



Figure 39 ñ Incorrect cleaning of the glass

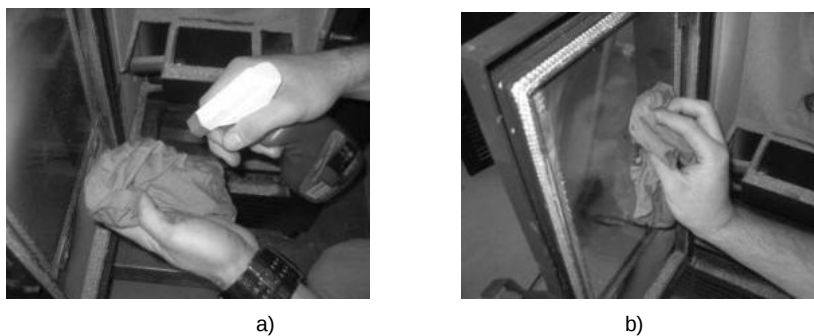


Figure 40 ñ Cleaning of the glass: a) moisten a soft cloth with liquid; b) clean the glass with the cloth

12 Alarms / failures / recommendation list

12.1 Alarms

Alarm	Code		Troubleshooting
Ignition failure	A01	Maximum time 2400 sec	- the worm drive channel is empty - restart the stove - resistance burnt ñ replace resistance - the burning basket has been incorrectly installed
No flame or lack of pellets	A02	Temperature under: - 104°F (40°C) (air model) - 109.4°F (43°C) (boiler model)	- Pellet reservoir is empty
Excess heat in the pellet drum	A03	194°F (90°C)	- the fan is not working ñ call for assistance - faulty thermostat - call for assistance - machine with faulty ventilation
Excess fume temperature	A04	Over 446°F (230°C) (air model); Over 446°F (260°C) (boiler model)	- the fan is not working or is working at a low power level - increase the level to the maximum (if the problem persists, call for assistance) - Insufficient extraction - Excess pellets
Pressure switch alarm	A05	The door is open, lack of draught or extractor fault for 60 sec	- close the door and clear the error message on the faulty pressure regulator - obstruction of the exhaust pipe or faulty extractor
Air mass probe	A06	40 lpm delta for 3600 sec	- pipes with insufficient extraction or obstructed pipes
The door is open	A07	Door open for 60 seconds	- close the door - clear the error message
Fume extractor is faulty	A08	Connection failure	- check connection
Fume probe failure	A09	Connection failure	- check connection
Pellet resistance error	A10	Connection failure	- check connection
Worm drive error	A11	Connection failure	- check connection
Pellet level alarm	A15		- check connection
Water pressure outside operating range	A16		- check connection
Excess water temperature	A18		- check connection

Table 2 ñ List of alarms

 Important note: all alarms cause the machine to shut down. The alarm must be reset and restarted. To reset the stove press the **On/Off** button for 10 seconds until the alarm sounds.

12.2 - Failures

Failures
Maintenance
Air probe failure
Low pellet level
The door is open
Air temperature probe failure
Water temperature probe failure
Water pressure sensor fault
Water pressure close to being outside operating range

Table 3 ñ List of failures

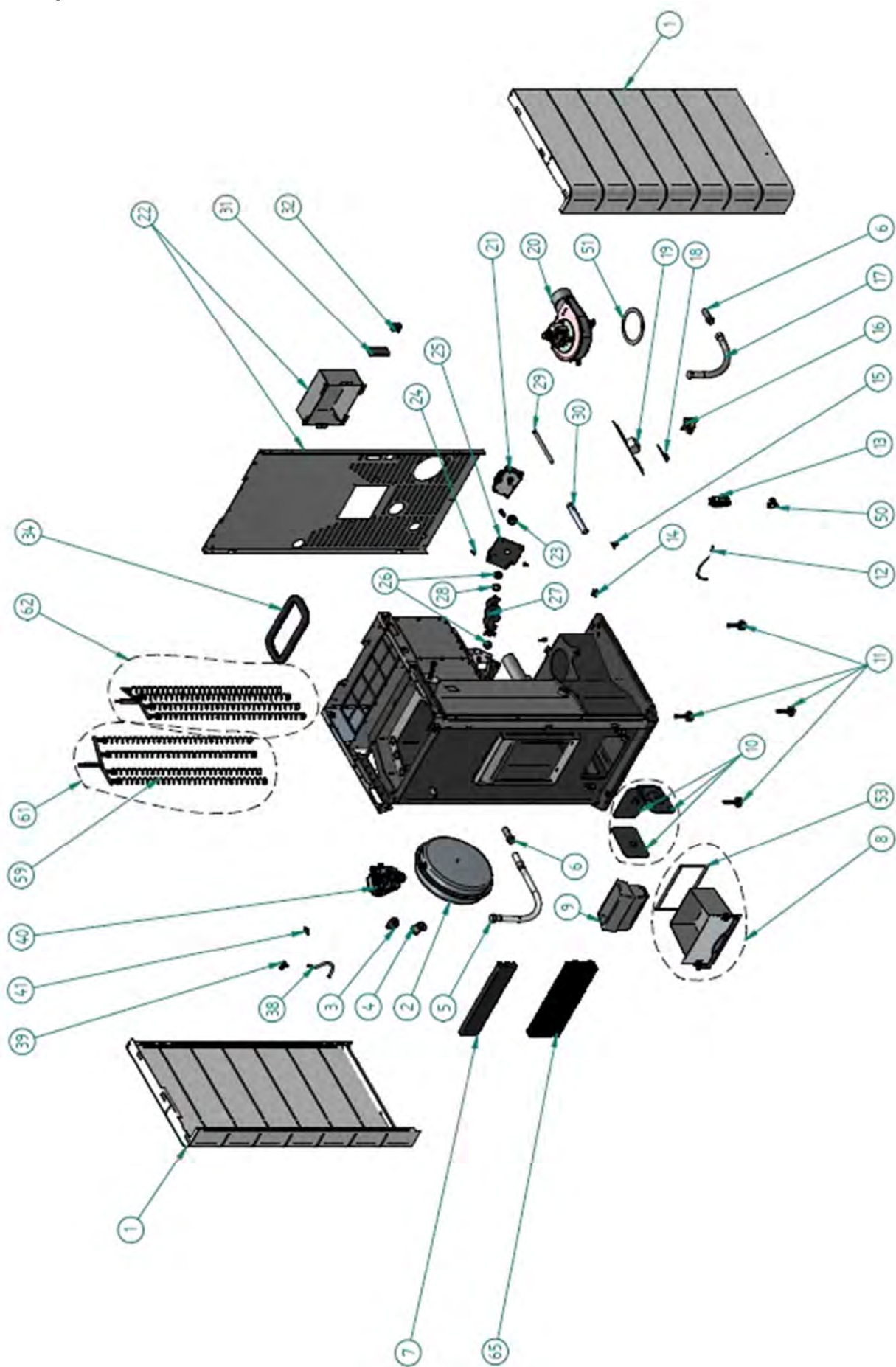
 Important note: the failures do not case the machine to shut down.

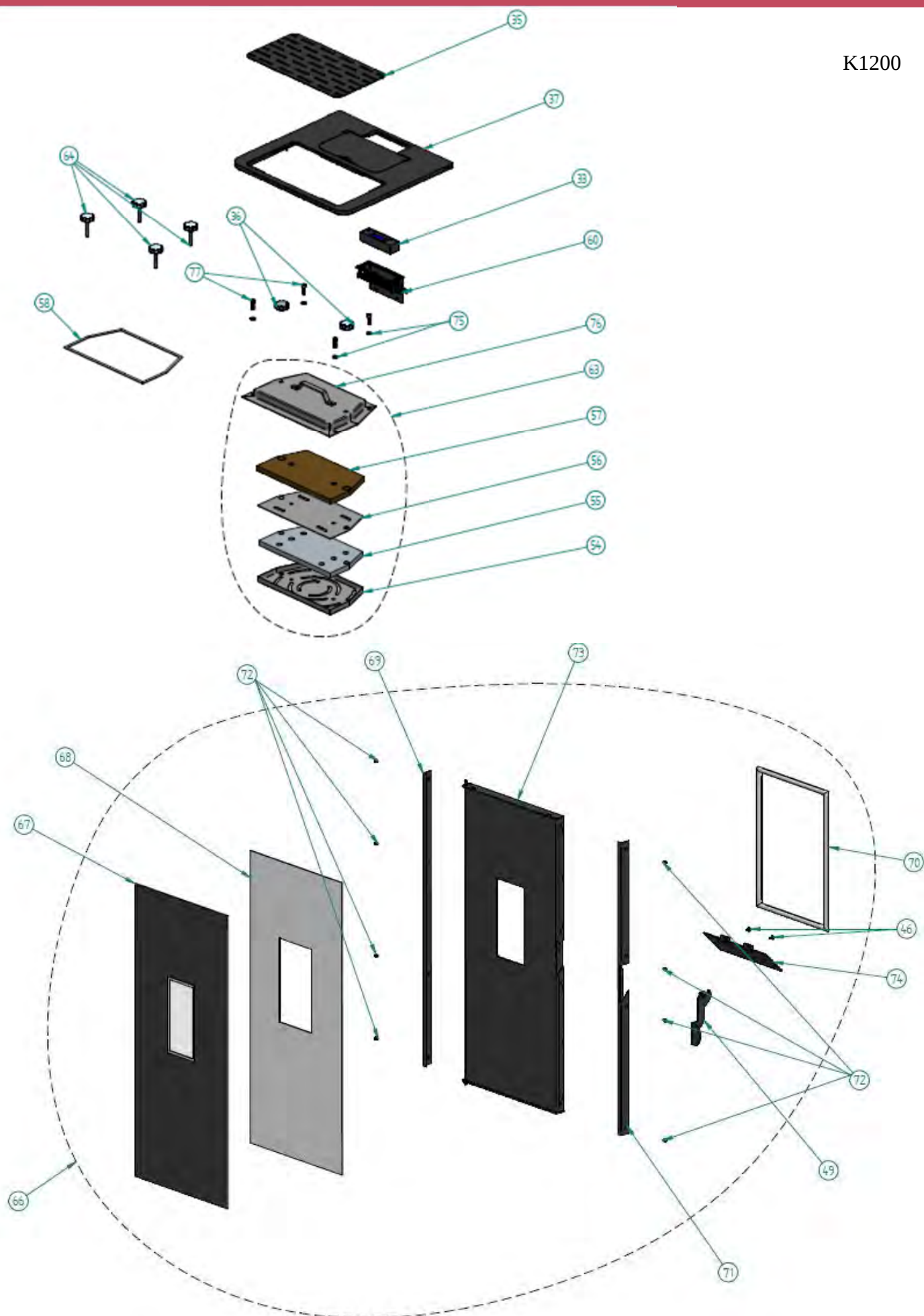
 **Warning!**

In case of an emergency, shut the stove down following the normal procedure to switch the stove off.

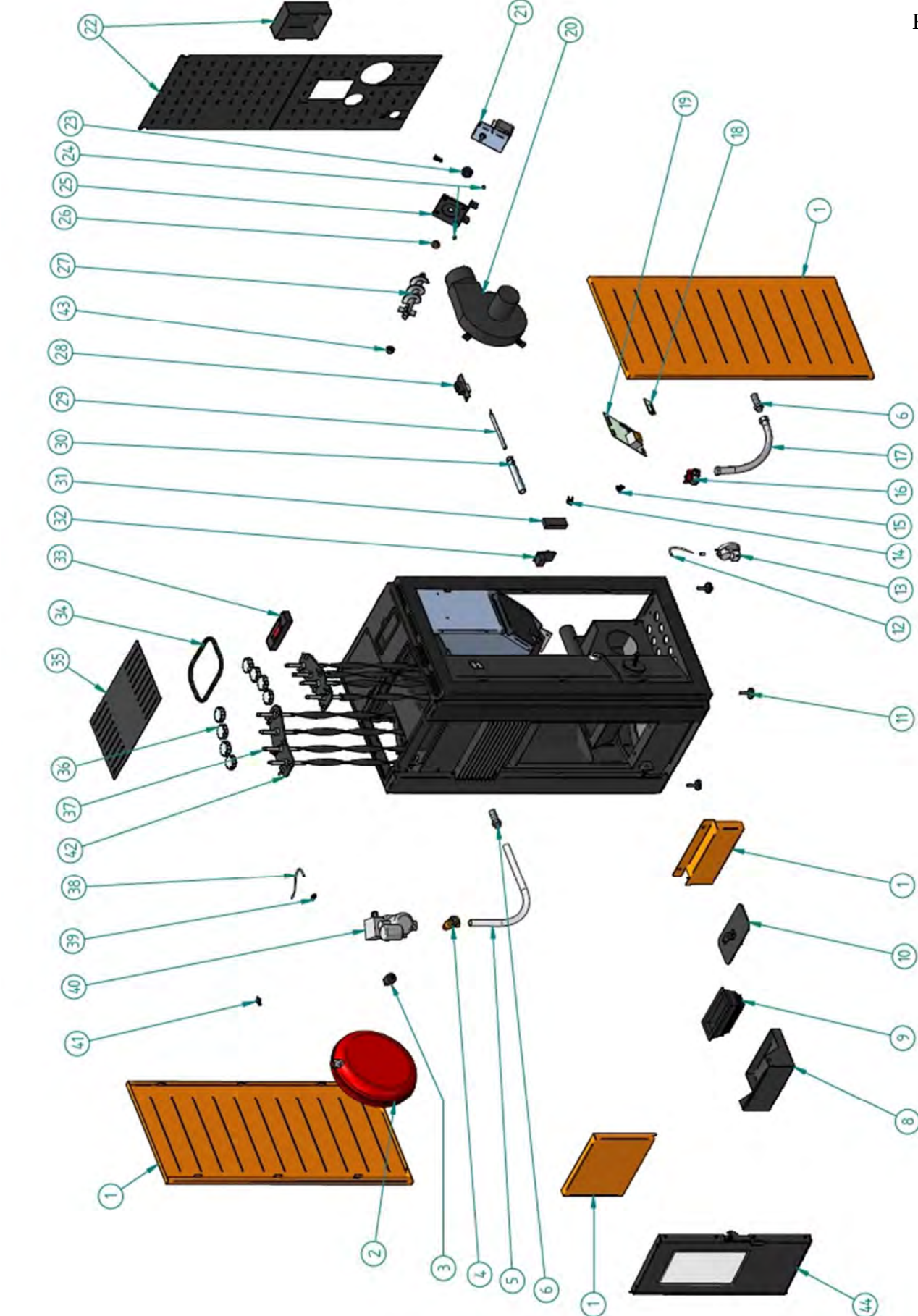
 **Warning!**

THE STOVE WILL BE HOT DURING OPERATION SO CARE MUST BE TAKEN ESPECIALLY WITH THE DOOR GLASS AND HANDLE.

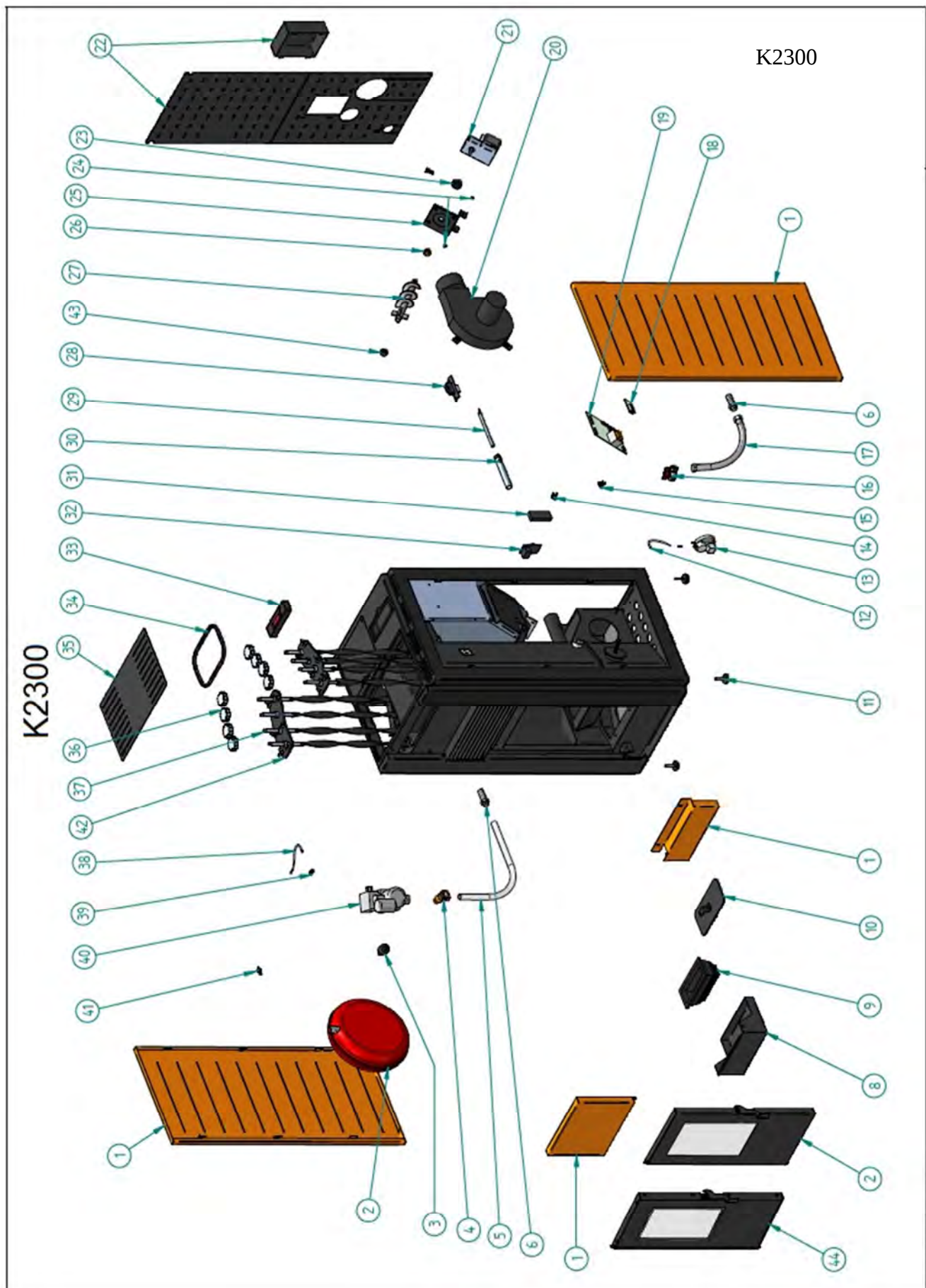




Spare Parts K1200		
1	. k1200SPBLK	K1200 SIDE PANEL BLACK SET
1	. k1200SPCT	K1200 SIDE PANEL CLARET SET
1	. k1200SPOAK	K1200 SIDE PANEL OAK SET
1	. k1200SPWH	K1200 SIDE PANEL WHITE SET
2	. CO080200000000	Expansion vessel 6L
3	. CO0315000000050	Water pressure sensor 0-3 Bar
8	. IC0402000260000	Ash Pan
9	. IS3525000260005	Burn Pot
10	. IC0120000260022	Flue cleaning port
11	. CO0713000000212	Levelling bolt M10x33
13	. CO0315000000030	Pressure Switch
14	. CO0306000000030	Boiler thermostat 95° C
15	. CO0306000000020	Pellet Hopper Thermostat 110°
18	. CO0312000000004	Control board add on
19	. CO0312000000080	Control Board
20	. IC0490000000006	Exhaust Fan
21	. CO0310000000150	Motor worm screw
22	. IC0212010030007	Back panel
23	. IC0114000000000	T143 Bushing
24	. CO0728000000000	Rubber motor stop
26	. CO010226T150A12	Wormscrew support
27	. IC0415000000000	Wormscrew
28	. IS0899012000000	Stainless washer
29	. CO0303000000006	Igniter Ceramic
31	. ME1006100000000	Universal connection interface
32	. CO0312000001000	Back source PG500
33	. CO0312000000032	Display panel
40	. CO0801000000006	Circulation pump UPM3 15-70 130
41	. CO0304000000040	Water temperature sensor
50	. CO0315000000060	Pressure switch support
51	. CO1206020000003	Extractor fan - gasket
59	. CO012332T027112	Cleaning spring 680x24
65	. IC0132000300011	Front Grill
66	. IC0420000260051	Door Complete
67	. CO0201053100000	Door glass 802x354x4



Exploded view.



Parts list K1700			Parts list k2300		
1 .	K1700SP	Side panel 17kW	1 .	K2300SP	Side panel 23kW
2 .	CO080200000000	Expansion vessel 6L	2 .	CO080200000001	Expansion vessel 10L
3 .	CO0315000000050	Water pressure sensor 0-3 Bar	3 .	CO0315000000050	Water pressure sensor 0-3 Bar
4 .	CO0803010000000	3 bar safety valve	4 .	CO0803010000000	3 bar safety valve
5 .	IC0467000000000	Clear hose with accessories	5 .	IC0467000000000	Clear hose with accessories
6 .	CO0806022604274	1/2" male brass bush	6 .	CO0806022604274	1/2" male brass bush
7 .	IC0420000260003	Door complete with glass	7 .	IC0420000260003	Door complete with glass
8 .	IS0102015260001	Ash Pan	8 .	IS0102015260001	Ash Pan
9 .	IS3525000260002	Burn pot	9 .	IS3525000260002	Burn pot
10 .	IC0120000260001	Trap door	10 .	IC0120000260001	Trap door
11 .	CO0713000000212	M10 Levelling bolts	11 .	CO0713000000212	M10 Levelling bolts
12 .	IS1510080000002	Tube Silicone 330 long 6mm ID	12 .	IS1510080000002	Tube Silicone 330 long 6mm ID
13 .	CO0315000000030	Pressure Switch	13 .	CO0315000000030	Pressure Switch
14 .	CO0306000000030	Boiler thermostat 95° C	14 .	CO0306000000030	Boiler thermostat 95° C
15 .	CO0306000000020	Pellet Hopper Thermostat 110° C	15 .	CO0306000000020	Pellet Hopper Thermostat 110° C
16 .	CO0803200000001	Ball valve MF 1/2x1/2	16 .	CO0803200000001	Ball valve MF 1/2x1/2
17 .	CO0805013250001	Drain hose MF 1/2"x1/2" 500mm	17 .	CO0805013250001	Drain hose MF 1/2"x1/2" 500mm
18 .	CO0312000000050	Additional Circuit board boiler models.	18 .	CO0312000000050	Additional Circuit board boiler models.
19 .	CO0312000000060	Circuit board boiler models	19 .	CO0312000000060	Circuit board boiler models
20 .	IC0490000000003	Extractor Fan boiler models	20 .	IC0490000000003	Extractor Fan boiler models
21 .	CO0310000000150	Motor worm screw	21 .	CO0310000000150	Motor worm screw
22 .	IC0212000300000	Back Panel K1700	22 .	IC0212010300006	Back Panel K2300
23 .	IC0114000000000	T143 Bushing	23 .	IC0114000000000	T143 Bushing
24 .	CO0728000000000	Rubber motor stop	24 .	CO0728000000000	Rubber motor stop
25 .	IC0414000260001	Motor support bracket	25 .	IC0414000260001	Motor support bracket
26 .	CO010226T150A12	Worm screw support	26 .	CO010226T150A12	Worm screw support
27 .	IC0415000000000	Worm screw	27 .	IC0415000000000	Worm screw
28 .	CO0315000000040	Air mass sensor	28 .	CO0315000000040	Air mass sensor
29 .	CO0303000000050	Igniter Steel	29 .	CO0303000000050	Igniter Steel
30 .	IC0409000000002	Igniter tube	30 .	IC0409000000002	Igniter tube
31 .	ME1006100000000	Universal connection interface	31 .	ME1006100000000	Universal connection interface
32 .	CO0317000000030	On-Off Switch- Filter	32 .	CO0317000000030	On-Off Switch- Filter
33 .	CO0312000000030	User Interface-Display	33 .	IS1610000000000	Hopper door seal
34 .	IS1610000000000	Hopper door seal	34 .	CO0312000000030	User Interface-Display
35 .	IS0116020300000	Top grill 17Kw	35 .	IS0116020300002	Top plate
36 .	CO0718230000112	Turbulator handle - M10	36 .	CO0718230000112	Turbulator handle - M10
37 .	IC0426000260000	Turbulator	37 .	IC0426000260000	Turbulator
38 .	IS1510080000003	Silicone hose	38 .	IS1510080000003	Silicone hose
39 .	CO0813000000009	Manual bleed tap	39 .	CO0813000000009	Manual bleed tap
40 .	CO0801000000006	Circulation pump UPM3 15-70 130 15h	40 .	CO0801000000006	Circulation pump UPM3 15-70 130 15h
41 .	CO0304000000040	Water temperature sensor	41 .	CO0304000000040	Water temperature sensor
42 .	IS0116050260000	Turbulator Fixing plate	42 .	CO010226T150A12	Worm screw support
43 .	CO010226T150A12	Worm screw support	43 .	IS0116050260000	Turbulator Fixing plate
44 .	IC0420000000002	Door complete with glass	44 .	IC0420000000002	Door complete with glass
45 .	CO0312000000035	Encoder	45 .	CO0312000000035	Encoder
	IS2030040400017	Door glass		IS2030040400017	Door glass
	CO1206020000001	Extraction fan gasket		CO1206020000001	Extraction fan gasket

14 Electrical

14.1 Electrical diagram of the Boiler pellet stove.

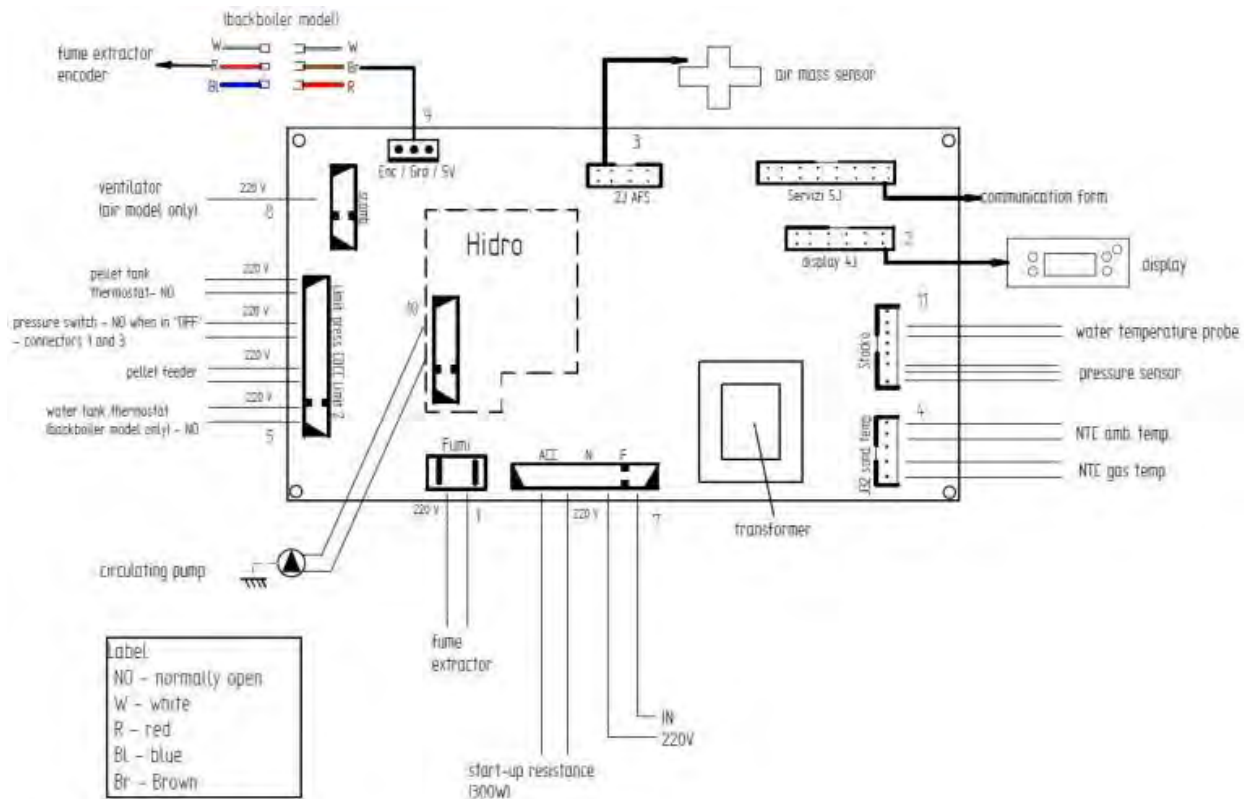


Figure 44 ñ Electrical diagram

14.2 Remote switched connection.

The volt free connection on the rear of the stove can be used to provide a remote call for heat.

The product can be set up with a remote timeclock, room thermostats and motorised valves using the standard S plan configuration where the auxiliary switch wires of the motorised valve can be connected to the remote connections in place of the wires in the picture below providing a call for heat.

All electrical connections must be made by a competent electrician.

The connection "therm" can be used in conjunction with a room thermostat, it will then allow the output of the pellet stove vary between high and low output in accordance with the thermostat.

The connection "remote" can be used in conjunction with a timer to switch the stove on or off.

Note.

Connections are low voltage; a closed loop will call the stove. Remote connections should be designed to switch infrequently to avoid excessive start up and shut down of the boiler.



Figure 45 ñ Remote connection

15 Circulation pump

15.1 Performance graphs for the UPSO 15-70 130mm circulating pump

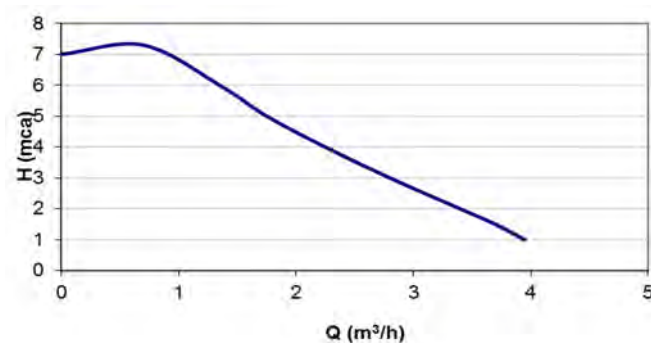


Figure 46 – Performance graphs for the circulating pump

15.2 Circulating pump User interface

The user interface was designed with a single button, a red/green LED and four yellow LEDs

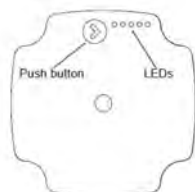


Figure 47– User interface

When the pump is operating, the LED 1 is green. 4 yellow LEDs indicate the current performance of the pump, as shown in the following table (Figure 8).

LED active	Performance (%)
LED Green	0 (Standby)
LED Green + 1 LED yellow	0 - 25
LED Green + 2 LED yellow	25 - 50
LED Green + 3 LED yellow	50 - 75
LED Green + 4 LED yellow	75 - 100

Table 1 – Performance of the pump

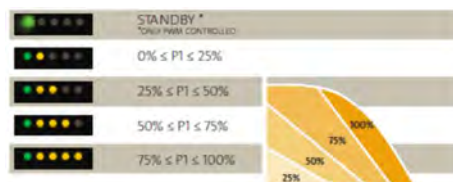


Figure 18 – Performance of the pump

Note: the pump is configured as standard at full capacity (75-100%).

15.3 Changing the setting of the pump

To switch between the view of the performance of pump and the view of settings, just press the button once.

If you need to change the pump performance, you must press the button for 2 seconds (see Figure 9), after this action the LEDs start blinking, then you must press the button until the desired setting (see Table 5), after 10 seconds the display automatically switches to the view of performance with alteration saved.



Figure 49 – Pump settings

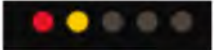
Maximum head (m)	Configuration
2-4	
3-5	
4-6	
5-7	

Table 2 – Pump settings

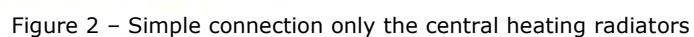
Alarms

If the pump detects one or more errors, the LED 1 changes from green to red when the alarm is activated the yellow LED indicates the type of alarm (see Table 6), if we have several alarms at the same time, the yellow LED indicates the alarm with higher priority, the priority sequence is defined on table as follows:

Display	Priority	Alarm	action
LED 1 red + LED 5 yellow 	1	Rotor is blocked	Wait or deblock the shaft
LED 1 red + LED 4 yellow 	2	Supply voltage too low	Control the supply voltage.
LED 1 red + LED 3 yellow 	3	Electrical error	Control the supply voltage or replace the pump.

Table 3 – Alarms

Simple connection only the central heating radiators



1

- Pump settings can be amended during commissioning if required.

Connection to central heating radiators and sanitary water combined with solar panel

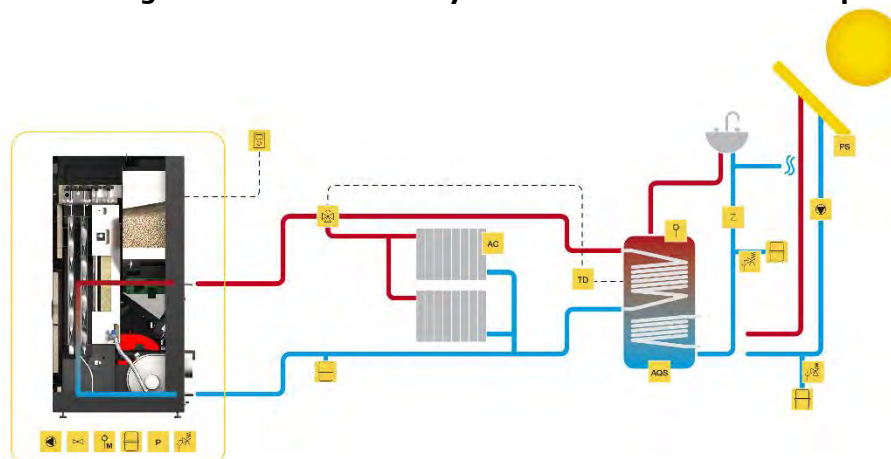


Figure 51 – Connection to central heating radiators and sanitary water combined with solar panel

Example: electrical connection of a thermostat (ambient air monitoring) of a differential thermostat connected to the deposit and three-way valve to a relay box

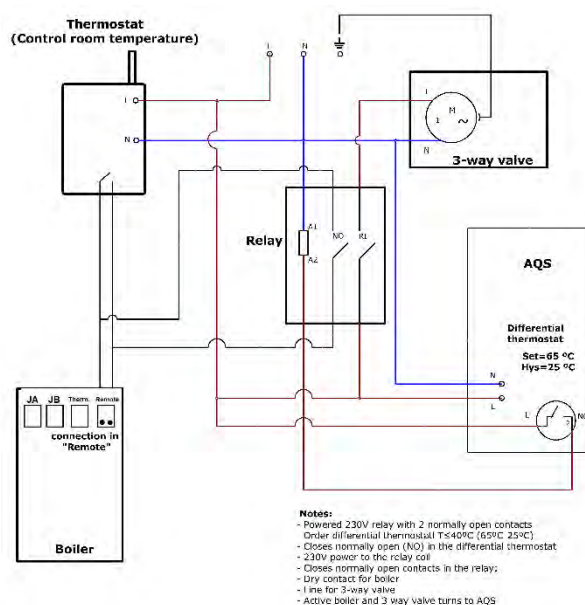


Figure 52 – electrical connection of a thermostat (ambient air monitoring) of a differential thermostat connected to the deposit and three-way valve to a relay box

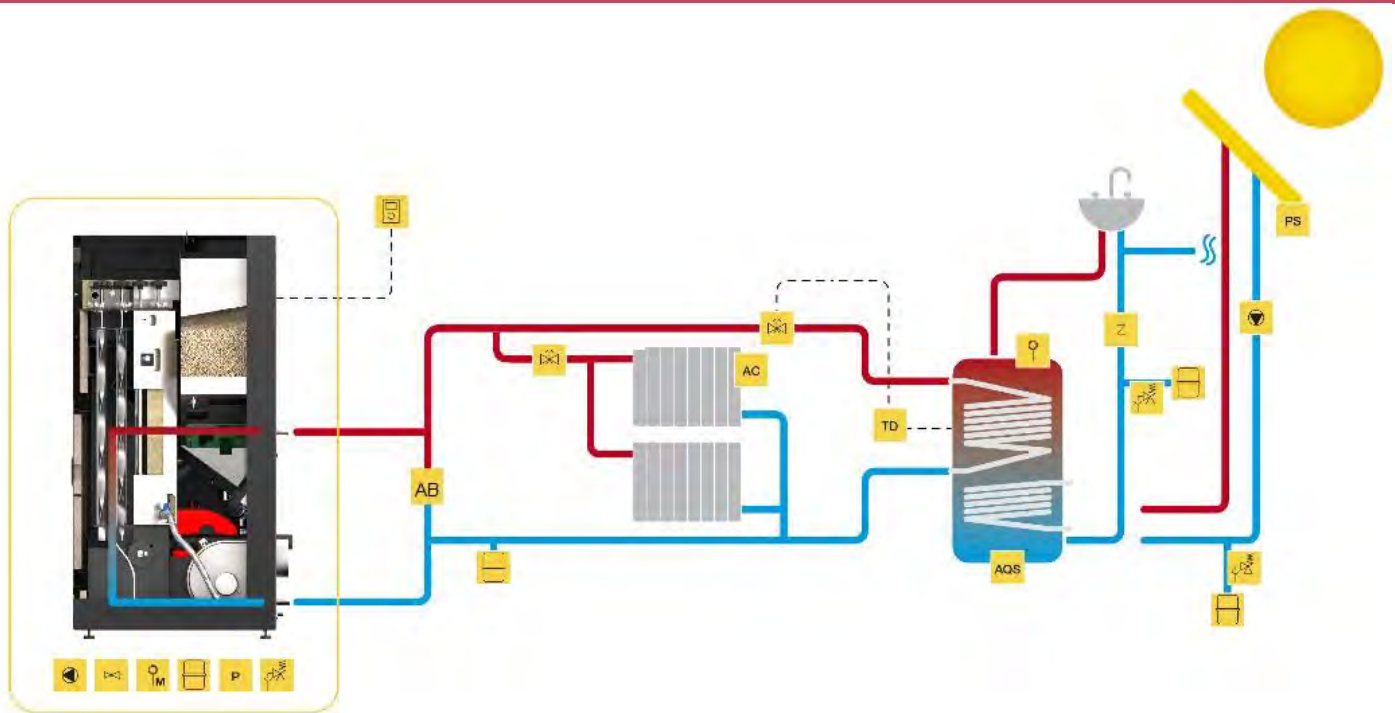


Figure 53 Connection of pellet boiler using 2 way valves and automatic bypass.

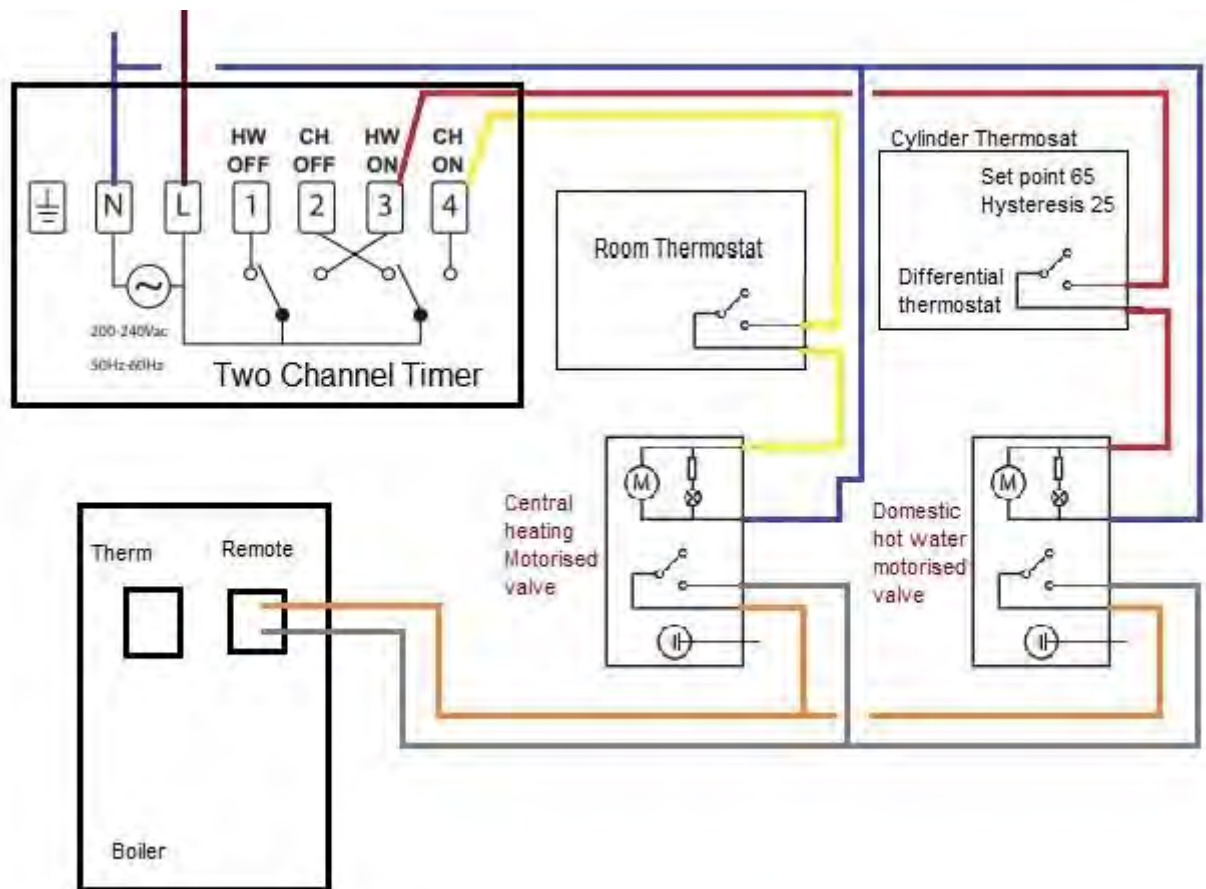


Figure 54

Connection to central heating radiators with supplementary boiler and sanitary water combined with solar panel.

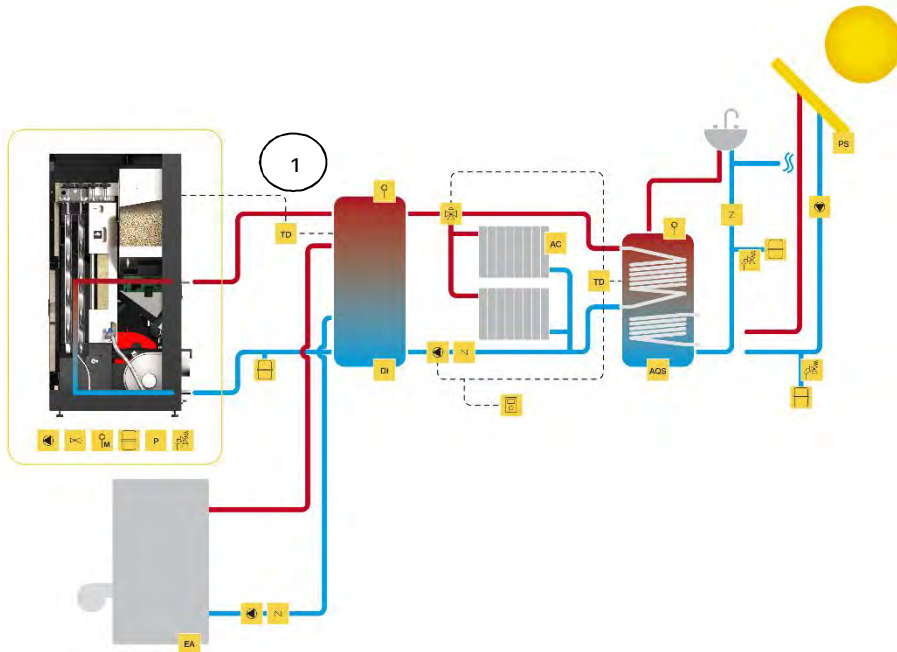


Figure 55 – Connection to central heating radiators with another boiler support and sanitary water combined with solar panel

Note:

- The Differential thermostat must have a hysteresis of 15 to 25 °C.
- Water temperature controlled regulation "Off" put the boiler in "manual" mode and power level to "5"
- Modulating pump "On"
- Water sensing inhibition "On"
- Alternative hydro shutdown "On"
- Pump "On" = 50 °C
- Pump "Off" = same or thermostat temperature 1°C below the temperature differential thermostat

When using the generator with differential thermostat the machine must be connected in the CONNECTION "Remote".

Calculation deposits of inertia / buffer tank: for pellet boilers it is recommended that the buffer tank has 20l/kW.

Connecting underfloor heating in conjunction with another boiler support and sanitary water combined with solar panel

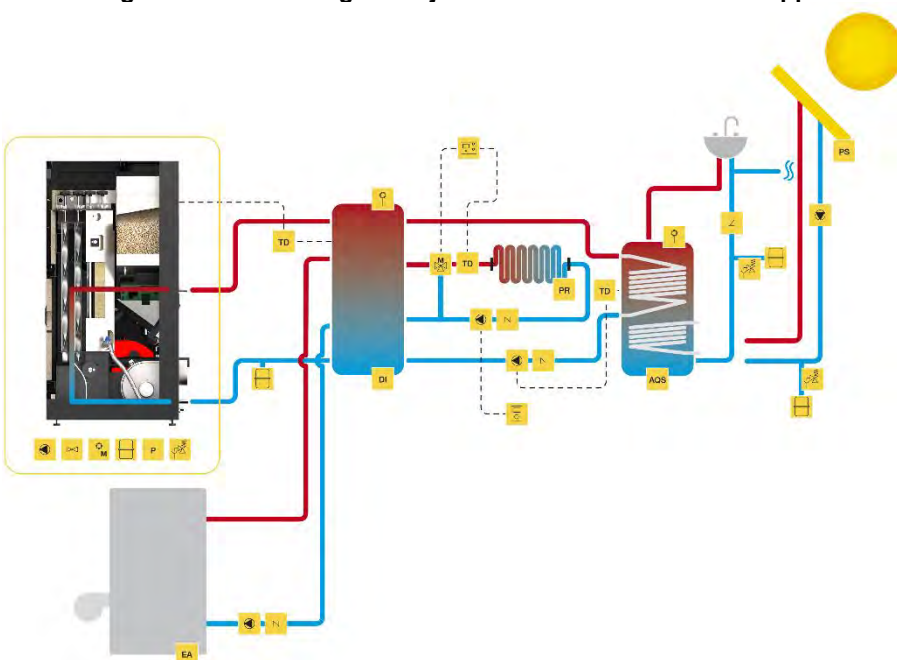


Figure 56 – Connecting underfloor heating in conjunction with supplementary boiler and domestic hot water combined with solar panel

Symbols



Figure 57 ñ Symbols

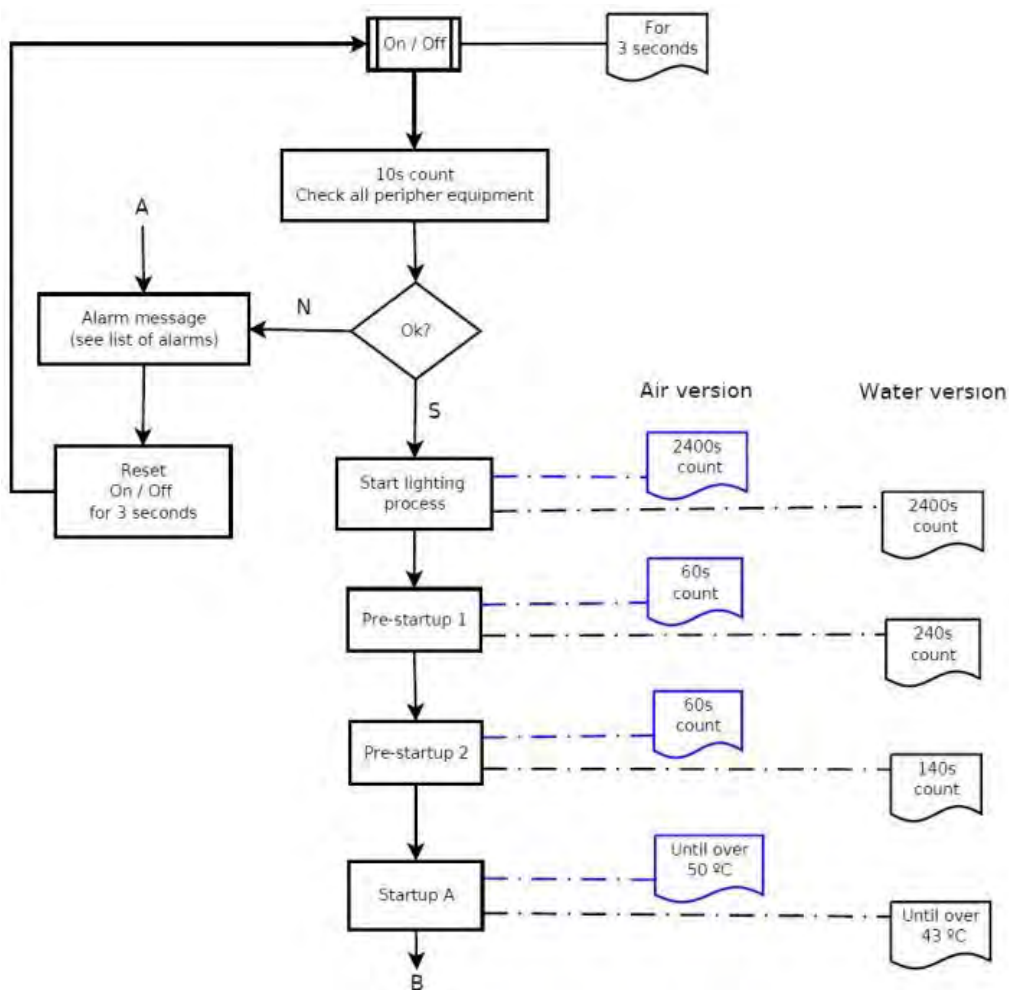
17 Life cycle of a Boiler pellet stove

Around 90% of the materials used in the manufacture of these stoves are recyclable, thus helping to reduce environmental impact and contributing to the sustainable development of the Planet. End-of-life stoves should be returned to authorised waste processing systems. We advise you to contact your local authorities for instructions.

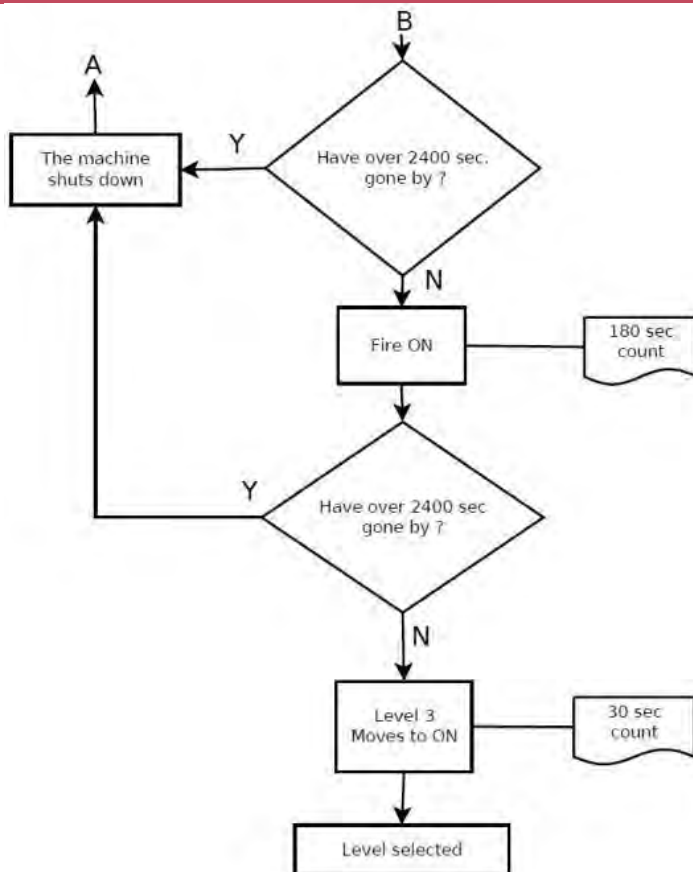
18 Annexes

Operations flow charts

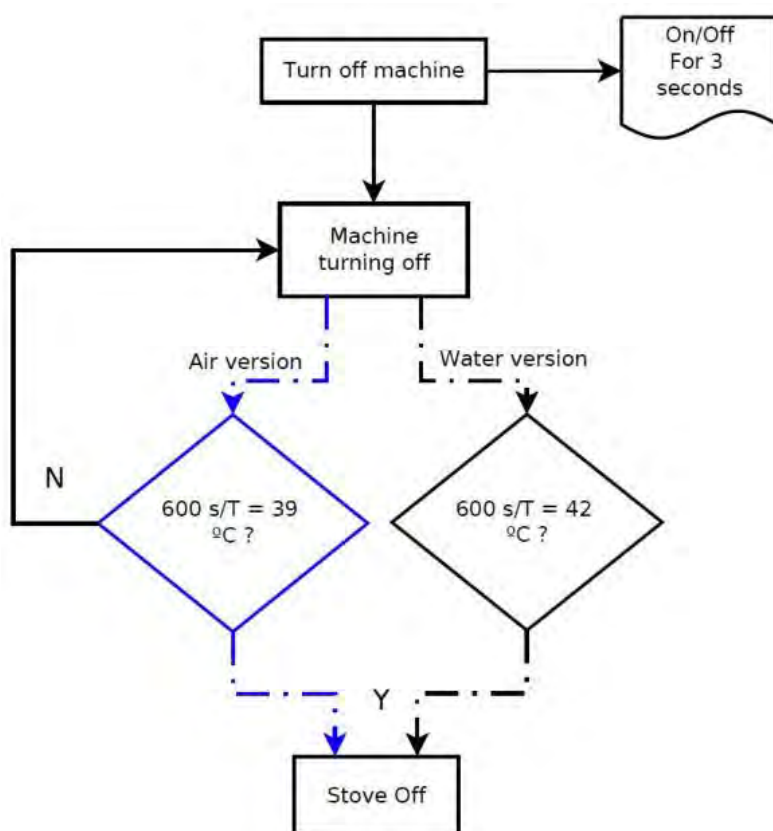
• Flow chart 1 – Normal activation



Note (only for the boiler model): The circulating pump operates intermittently from the moment the water temperature reaches 50°C and operates continuously from the set-point temperature.



• Flow chart 2 – Switching off the pellet stove.



Note The circulating pump is turned off when the water temperature reaches below 40°C.

Supplied by.
Waterford Stanley Ltd.,
Unit 401-403, IDA Industrial Estate,
Cork Road,
Waterford, Ireland.
Tel: (051) 302300
www.waterfordstanley.com

