



Riscalda la vita.



UK

DOWN-FIRED BOILERS USER MANUAL

LNK15 - LNK20 - LNK30 - LNK40

! ATTENTION



**SURFACES CAN BECOME VERY HOT!
ALWAYS USE PROTECTIVE GLOVES!**

During combustion, thermal energy is released that significantly increases the heat of surfaces, doors, handles, controls, glass, exhaust pipes, and even the front of the appliance. Avoid contact with those elements if not wearing protective clothing. Make sure children are aware of the danger and keep them away from the stove during operation.

ENGLISH - CONTENTS

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We thank you for having chosen our company; our product is a great heating solution developed from the most advanced technology with top quality machining and modern design, aimed at making you enjoy the fantastic sensation that the heat of a flame gives, in complete safety.

WARNINGS

This instructions manual is an integral part of the product: make sure that it always accompanies the appliance, even if transferred to another owner or user, or if transferred to another place. If it is damaged or lost, request another copy from the area technician. This product is intended for the use for which it has been expressly designed. The manufacturer is exempt from any liability, contractual and extracontractual, for injury/damage caused to persons/animals and objects, due to installation, adjustment and maintenance errors and improper use.

Installation must be performed by qualified staff, which assumes complete responsibility for the definitive installation and consequent good functioning of the product installed. One must also bear in mind all laws and national, regional, provincial and town council Standards present in the country in which the appliance has been installed, as well as the instructions contained in this manual.

The Manufacturer cannot be held responsible for the failure to comply with such precautions.

After removing the packaging, ensure that the content is intact and complete. Otherwise, contact the dealer where the appliance was purchased.

All electric components that make up the product must be replaced with original spare parts exclusively by an authorised after-sales centre, thus guaranteeing correct functioning.

SAFETY

- ◆ THE APPLIANCE MAY BE USED BY CHILDREN 8 YEARS OF AGE OR OLDER AND INDIVIDUALS WITH REDUCED PHYSICAL, SENSORY, OR MENTAL CAPACITIES OR WITHOUT EXPERIENCE OR THE NECESSARY KNOWLEDGE, PROVIDED THAT THEY ARE SUPERVISED OR HAVE RECEIVED INSTRUCTIONS ON SAFE USE OF THE APPLIANCE AND THAT THEY UNDERSTAND THE INHERENT DANGERS.
- ◆ THE GENERATOR MUST NOT BE USED BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY AND MENTAL CAPACITIES OR WHO ARE UNSKILLED PERSONS, UNLESS THEY ARE SUPERVISED AND TRAINED REGARDING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.
- ◆ THE CLEANING AND MAINTENANCE REQUIRED BY THE USER MUST NOT BE PERFORMED BY CHILDREN WITHOUT SUPERVISION.
- ◆ CHILDREN MUST BE CHECKED TO ENSURE THAT THEY DO NOT PLAY WITH THE APPLIANCE.
- ◆ DO NOT TOUCH THE GENERATOR WHEN YOU ARE BAREFOOT OR WHEN PARTS OF THE BODY ARE WET OR DAMP.
- ◆ THE SAFETY AND ADJUSTMENT DEVICES MUST NOT BE MODIFIED WITHOUT THE AUTHORISATION OR INDICATIONS OF THE MANUFACTURER.
- ◆ DO NOT PULL, DISCONNECT, TWIST ELECTRIC CABLES LEAVING THE STOVE, EVEN IF DISCONNECTED FROM THE ELECTRIC POWER SUPPLY MAINS.
- ◆ IT IS ADVISED TO POSITION THE POWER SUPPLY CABLE SO THAT IT DOES NOT COME INTO CONTACT WITH HOT PARTS OF THE APPLIANCE.
- ◆ DO NOT CLOSE OR REDUCE THE DIMENSIONS OF THE AIRING VENTS IN THE PLACE OF INSTALLATION. THE AIRING VENTS ARE ESSENTIAL FOR CORRECT COMBUSTION.
- ◆ DO NOT LEAVE THE PACKAGING ELEMENTS WITHIN REACH OF CHILDREN OR UNASSISTED DISABLED PERSONS.
- ◆ THE HEARTH DOOR MUST ALWAYS BE CLOSED DURING NORMAL FUNCTIONING OF THE PRODUCT.
- ◆ WHEN THE APPLIANCE IS FUNCTIONING AND HOT TO THE TOUCH, ESPECIALLY ALL EXTERNAL SURFACES, ATTENTION MUST BE PAID

- ◆ CHECK FOR THE PRESENCE OF ANY OBSTRUCTIONS BEFORE SWITCHING THE APPLIANCE ON FOLLOWING A PROLONGED PERIOD OF INACTIVITY.
- ◆ THE GENERATOR HAS BEEN DESIGNED TO FUNCTION IN ANY CLIMATIC CONDITION. IN PARTICULARLY ADVERSE CONDITIONS (STRONG WIND, FREEZING) SAFETY SYSTEMS MAY INTERVENE THAT SWITCH THE GENERATOR OFF. IF THIS OCCURS, CONTACT THE TECHNICAL AFTER-SALES SERVICE AND ALWAYS DISABLE THE SAFETY SYSTEMS.
- ◆ IN THE EVENT THE FLUE CATCHES FIRE, USE SUITABLE SYSTEMS FOR SUFFOCATING THE FLAMES OR REQUEST HELP FROM THE FIRE BRIGADE.
- ◆ THIS APPLIANCE MUST NOT BE USED TO BURN WASTE
- ◆ DO NOT USE ANY FLAMMABLE LIQUIDS FOR IGNITION

PURPOSE OF USE

The ecological water-cooled boilers are structured to heat homes, chalets, country houses and other similar buildings. The boilers are suitable to heat buildings having heat dispersion between 15 and 40 kW. The recommended type of combustion is dry wood having a diameter of 80 – 150 mm and log length of 500 mm. The boiler is not built to burn sawdust or small scraps of wood. These can only be used in minimum amounts (maximum 10%) together with larger pieces of wood.

IMPORTANT RULES FOR CORRECT OPERATION AND DURATION OF THE BOILER.

Boiler installation and testing **must be carried out by an authorised company**, which must also complete the INSTALLATION DECLARATION OF THE BOILER, as requested by the standard in force in this regard, UNI 10683.

1. **Fuel tar and condensation (acids)** can develop inside the combustion chamber. Therefore, in order to maintain **minimum water return temperature in the boiler (60°)** and prevent deposit of the aforesaid harmful elements, you must install an anti-condensation mixing valve at 60°C, or an adequate anti-condensation system.
1. When the system has reduced absorption (for example, for summer production of domestic water), the boiler must be switched on when required, loading the amount of wood strictly necessary to fulfil the request. You must then leave it to extinguish.
2. **We recommend** you install the boiler with storage tanks and a thermostatic mixing valve at 60°C, which guarantee **fuel savings of 20-30%, a longer duration of the boiler and the flue, as well as more comfortable management.**
3. The wood used must contain a moisture percentage below **15-20%. A higher moisture percentage reduces the boiler's power and increases consumption. A lower percentage generates irregular gas distribution, which makes it more or less impossible to control.**



ATTENTION – Failure to comply with the essential rules of installation and use significantly shortens the life-span of the boiler's structure and ceramic profiles as a result of the effect of low temperature corrosion. The boiler's structure can be subject to the effects of corrosion even within 2 years.

MANAGEMENT AND MONITORING

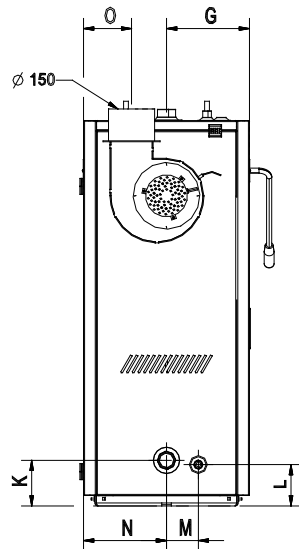
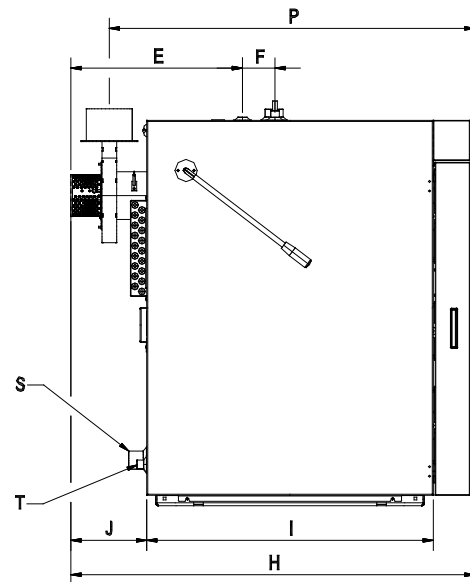
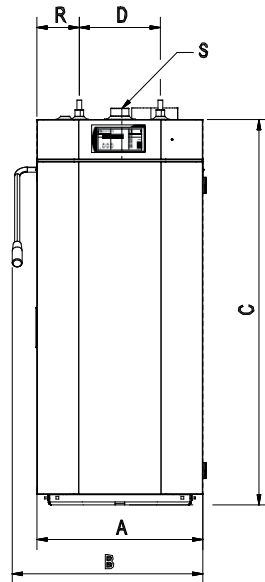
- It is forbidden to leave children unattended next to the boiler when in operation.
- It is forbidden to use flammable liquids to ignite the boiler with solid fuel. Also, during operation, it is forbidden to increase the nominal power (overheating) in any way.
- **It is forbidden to throw flammable objects into the boiler or next to the infeed opening and ash drawers, and it is compulsory to only empty the ashes in non-flammable containers equipped with a cover.**
- The boilers must be supervised by the operator from time to time during operation.
- During operation, check the seal of the doors and the cleaning openings, which must always be secured well.
- The user is not authorised to intervene on the structure and electrical system of the boilers.
- The boiler must always be perfectly clean in a timely manner in order to ensure good flow of all draughts.
- The infeed doors and ash drawer must always be closed properly.

According to Italian Legislative Decree 412/93 and subsequent updates, the people in charge of the system are different and are characterised according to the system's power.

TECHNICAL SPECIFICATIONS

MODEL	LNK 15	LNK 20	LNK 30	LNK 40
Boiler NOMINAL power	17,3 kW	21 kW	29 kW	37 kW
Boiler GLOBAL power	19,4 kW	23,5 kW	32,2 kW	40,9 kW
Boil efficiency	89 %	89,3 %	89,9 %	90,5 %
Size of loading chamber	89 L	89 L	119 L	119 L
Recommended draught of the flue	15 Pa	15 Pa	15 Pa	15 Pa
Exhaust gas flow rate volume at NOMINAL power	11,2 g/s	12,7 g/s	16 g/s	19 g/s
Exhaust gas temperature at nominal power	165 °C	170 °C	174 °C	180 °C
Max. water overpressure	0,25 MPa	0,25 MPa	0,25 MPa	0,25 MPa
Volume of water in the boiler	72 L	72 L	91,6 L	90,2 L
Weight of the boiler	465	465	519	524
Smoke outlet diameter	150	150	150	150
Boiler connection - supply	1 ½"	1 ½"	1 ½"	1 ½"
Boiler connection - return	1 ½"	1 ½"	1 ½"	1 ½"
VAST valve probe	½"	½"	½"	½"
DSA integrated input - output system	¾"	¾"	¾"	¾"
Boiler height	1212 mm	1212 mm	1212 mm	1212 mm
Boiler depth	1271 mm	1271 mm	1271 mm	1271 mm
Boiler width (boiler structure)	522 mm	522 mm	618 mm	618 mm
Boiler width (with control lever)	599 mm	599 mm	695 mm	695 mm
Average fuel consumption	4,5 kg/h	5,4 kg/h	7,4 kg/h	9,2 kg/h
CO ₂	11,65 %	12,09 %	13,05 %	13,91 %
CO (10% O ₂)	184,5mg/m ³	202,1 mg/m ³	240,2 mg/m ³	274,4 mg/m ³
Powder emissions (10% O ₂)	19,2 mg/m ³	18,9 mg/m ³	18,2 mg/m ³	17,6 mg/m ³
CO (13% O ₂)	134,2 mg/m ³	147 mg/m ³	174,7 mg/m ³	199,6 mg/m ³
Powder emissions (13% O ₂)	14,0 mg/m ³	13,8 mg/m ³	13,2 mg/m ³	12,8 mg/m ³
Max. wood length	500 mm	500 mm	500 mm	500 mm
Connection voltage	230V / 50Hz	230V / 50Hz	230V / 50Hz	230V / 50Hz
SMOKE fan	28 W	33 W	43 W	52 W

BOILER OVERALL DIMENSIONS



Cleaning lever on the right - inversion by a qualified technician.

	LNK 15	LNK 20	LNK 30	LNK 40
A	522	522	618	618
B	599	599	695	695
C	1212	1212	1212	1212
D	255	255	351	351
E	540	540	540	540
F	102	102	102	102
G	261	261	314	314
H	1271	1271	1271	1271
I	902	902	902	902
J	238	238	238	238
K	143	143	143	143
L	130	130	130	130
M	100	100	100	100
N	261	261	312	312
O	151	151	199	199
P	1150	1150	1150	1150
R	138	138	88	88
S	1 1/2"	1 1/2"	1 1/2"	1 1/2"
T	1/2"	1/2"	1/2"	1/2"

TECHNICAL DESCRIPTION

ADVANTAGES OF DOWN-FIRED BOILERS

Combustion in boilers is carried out at high temperatures on the principle of gasification that saves fuel and protects the environment. The primary and secondary air is heated in the boilers at high temperatures and this ensures a hot and stable flame and constant fuel quality. All models are equipped with a suction fan and are easily handled and manageable. A large fuel feeder provides the option to burn logs of wood 500 mm long. All models are equipped with a D.S.A. cooling coil.

DOWN-FIRED BOILER OPERATION

Burning wood with a **traditional system** defined as << **direct flame** >>, whether this is carried out on a fireplace, a cooker or a stove, all the wood that is loaded will burn together since it is covered by the flame that envelopes it and rises from the bottom. For this reason, it will not be possible to obtain longer fuel duration.

With a **down-fired boiler**, also known as << **total gasification boiler** >>, fuel is obtained with a completely different system, which almost avoids the entire problem described above.

This boiler is divided into two parts: the upper part (loading chamber) is used to load the wood and its volume is such that it can contain an amount to ensure operation (maximum continuous power) between 3 and 4 hours.

Combustion air, which is divided into primary and secondary, is fed through a fan connected immediately above the smoke discharge pipe (SUCTION BOILER), which depressurises the bottom chamber by suctioning the smoke through the slot that opens at the bottom of the said chamber.

The bottom part contains the actual combustion chamber with the ash collection drawer.

Operation is as follows: load a moderate amount of the wood from the centre door. Wood that is in direct contact with the embers will heat up immediately and develop fuel gas.

The primary air sucked up by the fan through the opening will filter through the pieces of loaded wood until it reaches the contact point between the wood and the embers igniting this gas, thus causing partial combustion. This obtains a flame that is partly composed of carbon monoxide, which, as known, is fuel gas.

When it passes through the nozzle opening that communicates the loading chamber with the bottom chamber, secondary air reaches the flame (still input by the fan), which completes combustion.

During this phase, the temperature of the flame can increase significantly and go beyond 1100 °C, thus completely burning all substances, which would otherwise remain partially burned in a traditional system. Moreover, excess air required will be much more contained (approximately 20 - 30%) compared to more than 100% required in other systems, thus limiting sensible heat dispersion in the smoke.

On the other hand, the upper chamber will hardly have a flame since this is sucked up by the fan and made to pass through the central opening. The loaded pile of wood is not covered with the flame and it does not catch fire like a traditional system.

The wood will only burn when it is in contact with the remaining embers left from previous combustion.

ATTENTION

When the fan is off, the wood left in the boiler still remains in contact with the layer of embers and thus continues gasifying; however, the gas produced is not burned. Since there is no combustion air, the most volatile part of the gas exits from the flue, whereas the less volatile part deposits in the loading chamber and the surfaces touched by the flame, thus creating tar scaling that can, in certain cases, obstruct the smoke passages.

The wood still burns and causes a significant reduction in the boiler's overall performance. Also, a large part of the moisture in the smoke remains condensing inside the boiler, thus generating the onset of corrosion.

For these reasons, the system must be sized correctly to avoid long pause times that would cause significant problems like the ones mentioned above.



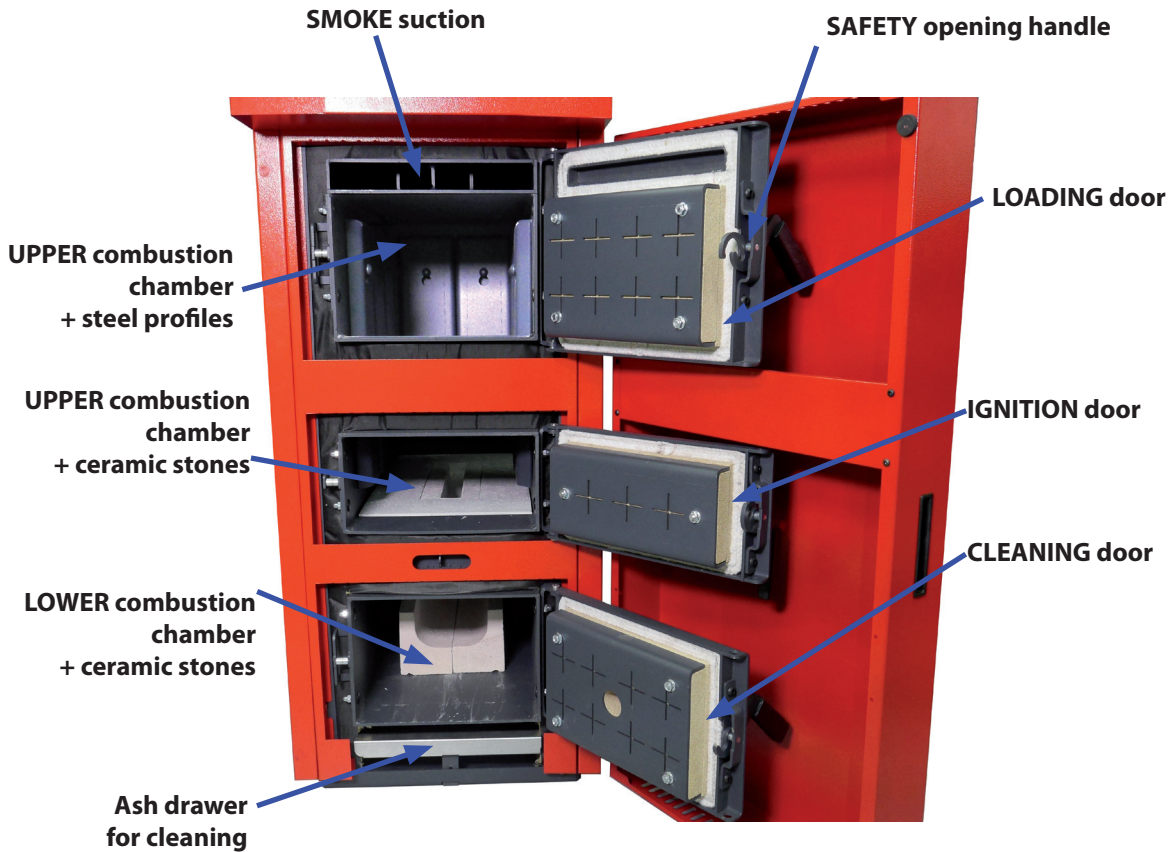
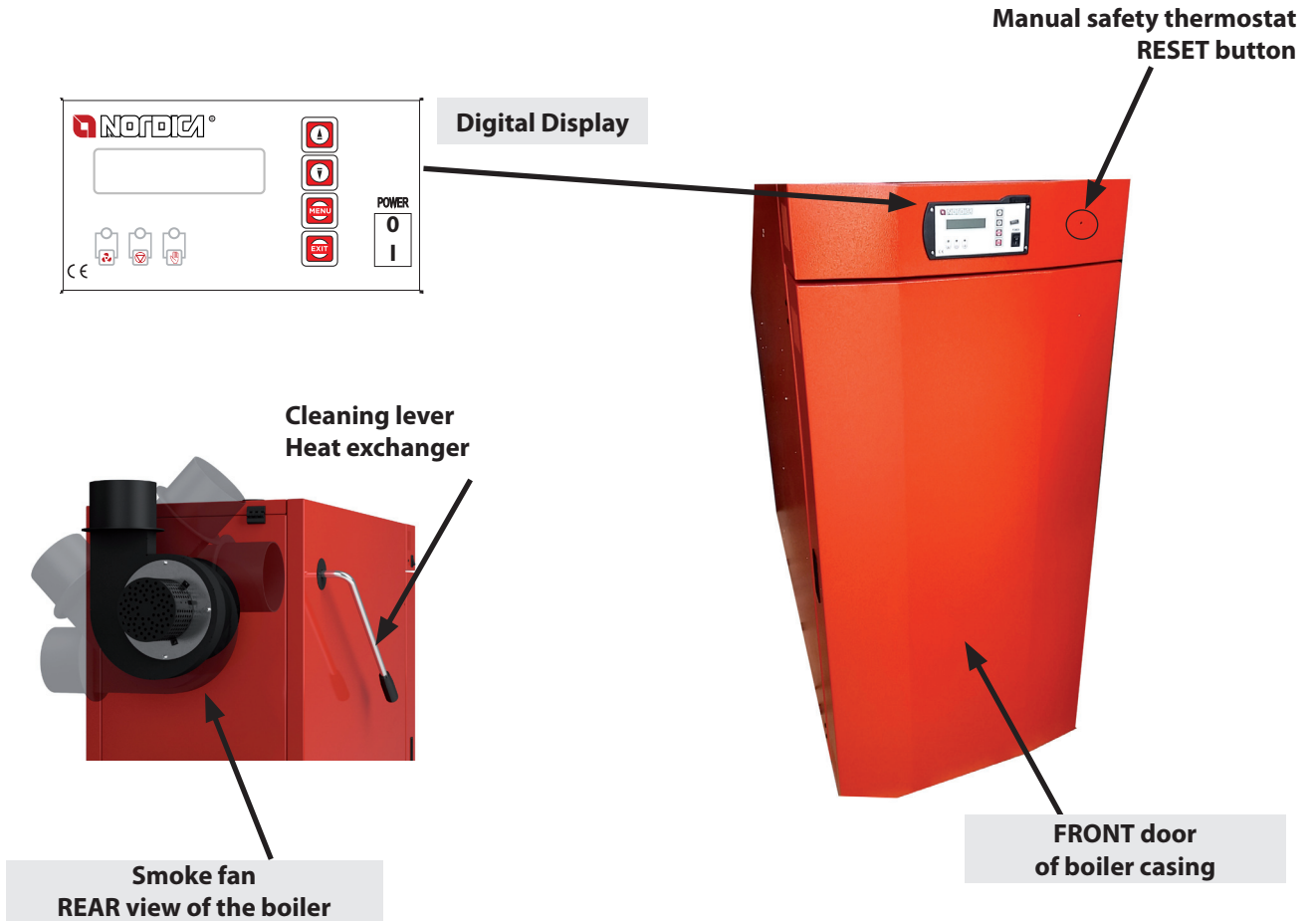
FOR THESE REASONS, THE BOILER MUST NEVER BE OVERSIZED COMPARED TO ACTUAL SYSTEM REQUIREMENTS

STANDARD COMPONENTS

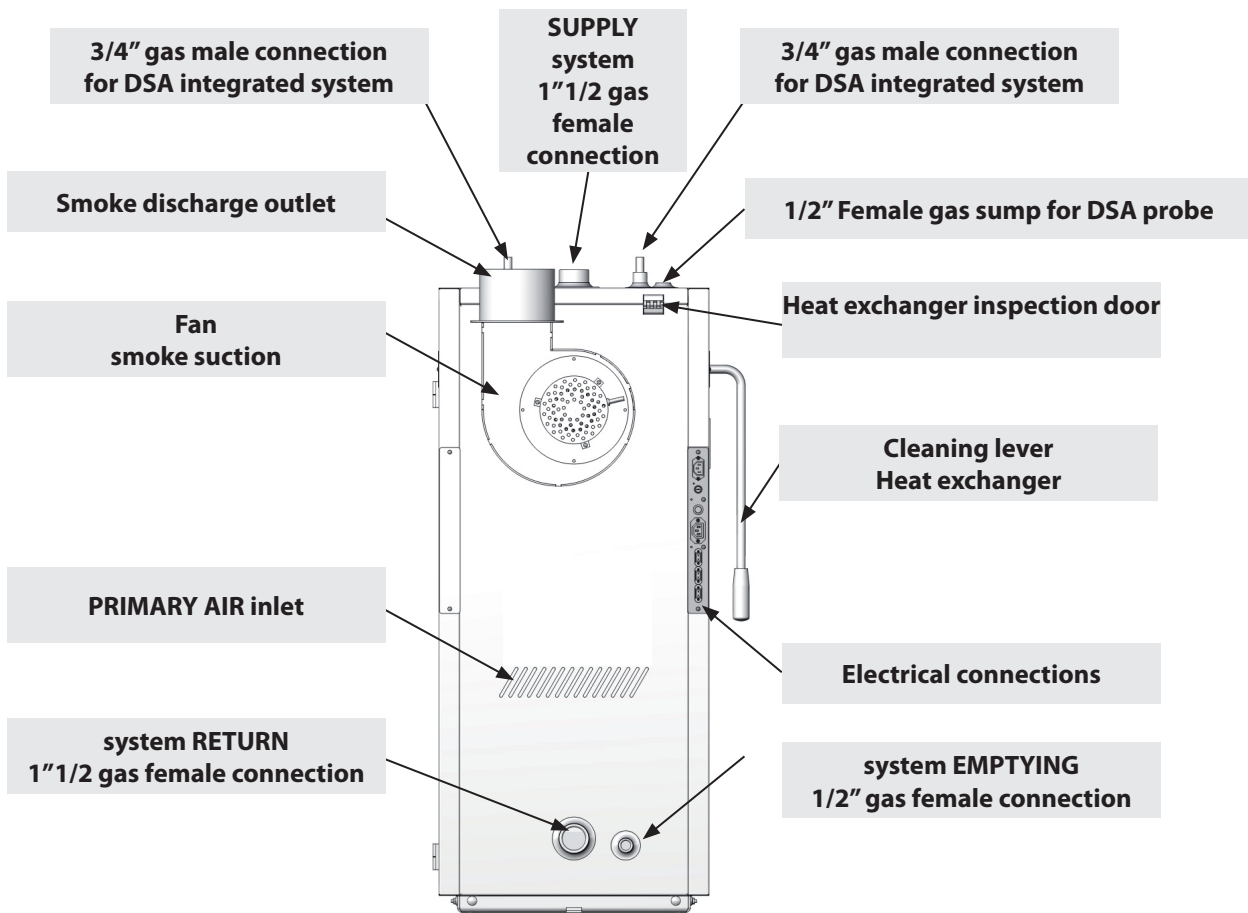
The boiler is supplied complete with:

- digital display
- power supply cable (plug NOT supplied)
- cleaning set
- assembly and operating instructions
- identification plate
- suction fan complete with smoke fittings
- Puffer probe (storage tank technician)

IDENTIFICATION OF COMPONENTS

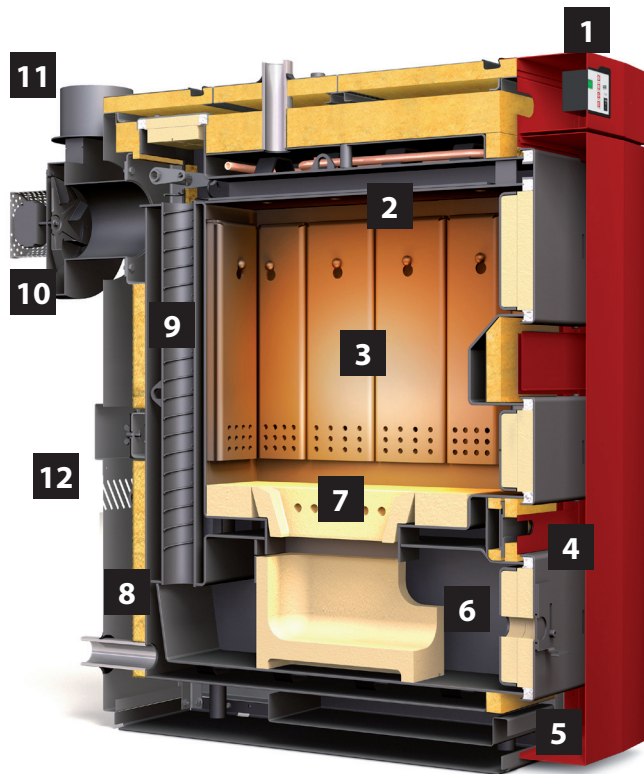


THE QUALIFIED TECHNICIAN CAN CHANGE DOOR OPENING !



IDENTIFICATION OF COMPONENTS

- 1 - Digital Display
- 2 - Suction system
- 3 - Removable loading chamber steel profiles
- 4 - Secondary air valve
- 5 - Ash drawer
- 6 - Combustion chamber with ceramic stones
- 7 - Nozzle opening
- 8 - Thermal insulation
- 9 - Shell and tube heat exchanger and turbulators with manual cleaning system
- 10 - Smoke suction fan
- 11 - Smoke discharge fitting
- 12 - Primary air inlet

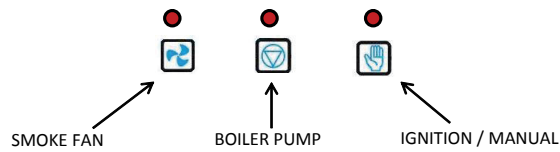
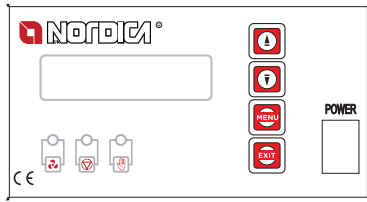


DIGITAL DISPLAY - OPERATION AND SETTINGS

The digital display regulates combustion and power of the boiler according to the water temperature and smoke temperature.

Display

The display shows the actual operating parameters of the boiler:



Menu	Exit	Up arrow	Down arrow
- Confirm menu items - Save edited parameters	- Go back to previous screen - Exit selected items	- Scroll through menu items - Increase parameters	- Scroll through menu items - Decrease parameters

COMMISSIONING / USE

Switch off - Turn the switch lever to **O**

Switch on - Turn the switch lever to **I**

The programmed software number will appear for approximately 5 seconds, for example: ".... 23.0"

If the screen displays an error message and an audible signal is issued, the error must be solved. In this regard, we kindly ask you to read the section regarding "Faults".

FIRMWARE VERSION

LA NORDICA xx.xx

TEMP. READ	SET. TEMP.		IGNITION ON	
xxx °C	80° - 85°C	MENU x 3sec	<input checked="" type="checkbox"/> BOILER TEMPERATURE	FLASHING
OFF			<input type="checkbox"/> PUFFER TEMPERATURE	
			▼	
			<input checked="" type="checkbox"/> BOILER TEMPERATURE	FLASHING
			<input type="checkbox"/> PUFFER TEMPERATURE	
			▼	
			<input type="checkbox"/> PUFFER TEMPERATURE	FLASHING
			<input type="checkbox"/> SMOKE TEMPERATURE	
			MENU	
			<input type="checkbox"/> SMOKE TEMPERATURE	
WATER TEMP. READ	SMOKE TEMP.	% SMOKE MOTOR OPERATION		
25°C	20°C	0 %		
WATER Temp.	SMOKE	AIR		

NAVIGATION MENU

TEMP. READ	SET. TEMP.				
xxx °C	80° - 85°C			IGNITION ON	
OFF		MENU	IGNITION	MENU	■ IGNITION
			▼		
			MANUAL	MENU	SMOKE RPM
					▼
					□ SMOKE MOTOR
					MENU
					▼
					□ BOILER PUMP
					MENU
					▼
					□ POTENTIAL FREE CONTACT TA
					MENU
					CLOSED CONTACT
					▼
					□ ALARM
					MENU
					SMOKE MOTOR % SETTING
					1% - 100%
					SMOKE MOTOR ON / TEST
					■ SMOKE MOTOR
					BOILER PUMP ON / TEST
					■ BOILER PUMP
					OPEN POTENTIAL FREE CONTACT ON / TEST
					■ OPEN CONTACT
					ALARM BUZZER ON / TEST
					■ ACOUSTIC ALARM ON
					65°C
					BOILER PUMP TEMP
					▼▲
					SET PUMP IGNITION TEMPERATURE
					20° - 75°C
					BOILER PUMP TEMPERATURE
					MENU
					■ ACOUSTIC ALARM ON
					MENU
					□ ALARM OFF
					▼
					LANGUAGE
					MENU
					□ DEUTSCH
					MENU
					▼▲
					□ ENGLISH
					MENU
					■ DEUTSCH ON
					▼
					■ PUFFER ON
					MENU
					□ PUFFER OFF
					▼
					RESET PARAM. USER
					YES NO
					DEFAULT SETTINGS
					▼▲
					FLASHING YES or NO to confirm MENU
					YES NO
					▼
					TYPE OF FLUE
					MENU
					□ SWITCH ON
					MENU
					▼
					SMOKE RPM
					MENU
					70% SMOKE RPM - DEFAULT
					▼▲
					1% - 100%
					▼
					WORKING TIME
					MENU
					45 MINUTES WORKING TIME - DEFAULT
					▼▲
					1 - 60 minutes

SPECIAL INFORMATION FOR THE BOILER'S USER AND INSTALLER

Boiler measurement (if applicable by current regulations)

It is recommended for the system's installer (heating installer) to be present when measuring the chimney sweep. If system problems are encountered, the installer can intervene immediately in total safety. The measuring sequence must be strictly complied with!

Preparation:

- totally clean boiler (important: heat exchanger pipes)
- totally clean gas discharge pipe
- integrated and set draught controller (15 Pa)
- logs of combustion wood (50 cm long and approximate Ø of 8-10 cm)
- residual log humidity 12 % –20 % (measured in the centre)
- sufficient capacity (temperature) in the Puffer
- inspection of door gaskets (no infiltration air must penetrate inside the boiler)

Boiler measurement:

- before measuring, the boiler must have been operating continuously for approximately 1 hour so that the ceramic parts reach the operating temperature
- when starting to measure, the water temperature in the boiler must be minimum 60 °C
- the buffer tank must be large enough to ensure constant heat reduction (the fan must operate with 100% of the total load)
- in the event of high fan power fluctuations, you must stop the boiler's measurement and find the cause of irregular fan operation

Residual embers from previous combustion must be distributed evenly in the upper combustion chamber. A 4-5 cm bed of embers would be ideal.

The sealed fuel must be piled above.

The upper loading door is then closed. For combustion, the ignition door is opened briefly so that the gas discharge temperature reaches approximately 200°C.

Measurement of the chimney sweep can be started 5 minutes after the ignition door is closed.

HEATING VALUES

SMOKE probe	PT 1000	
WATER probe	KTY81-210	
PUFFER probe	KTY81-210	

°C	0	10	20	30	40	50	60	70	80	90
PT 1000	1000	1039	1078	1117	1155	1194	1232	1271	1309	1347
KTY81-210	1630	1772	1922	2080	2245	2417	2597	2785	2980	3182

FUEL.

The recommended type of fuel is dry wood having a diameter of 80-150 mm, aged for minimum 2 years, with a moisture content not exceeding 15-20%, heat output of 4.7 kW/kg and a log length of 500 mm.

The dimensions of the fuel to use can be found in the section regarding "TECHNICAL SPECIFICATIONS".

Basic data regarding wood.

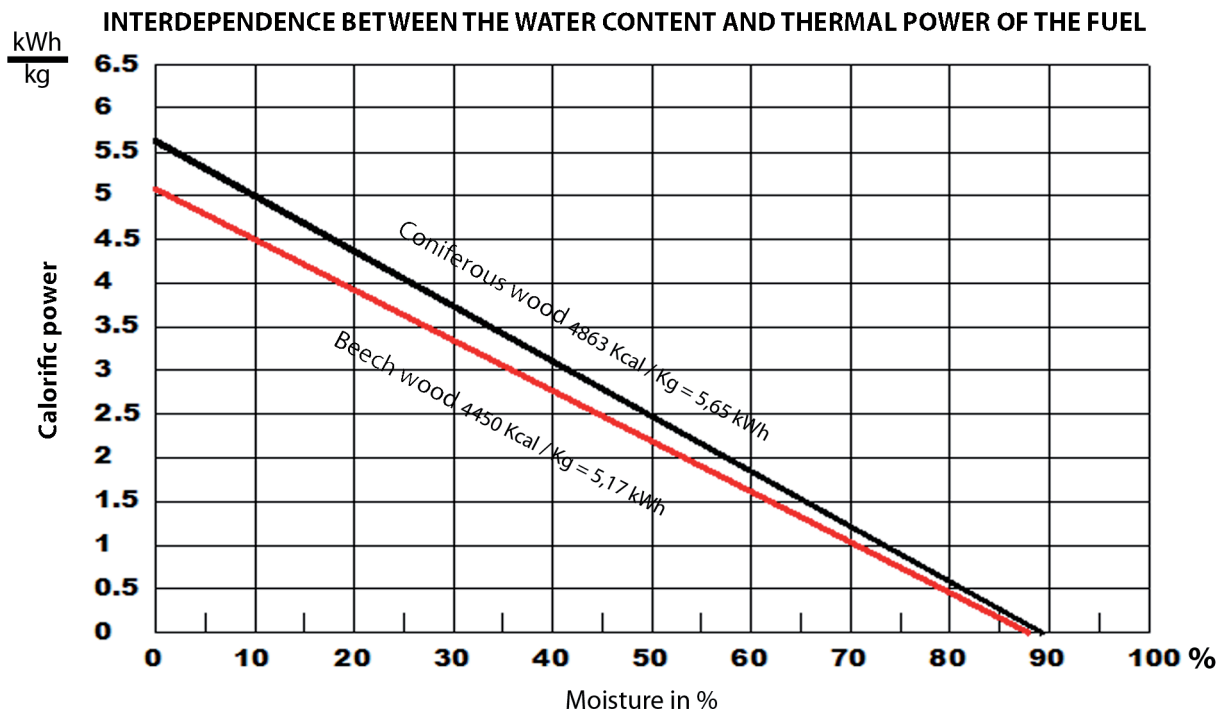
The graph below indicates the interdependence between the water content and thermal power of the fuel. The useful energy volume of the wood drops significantly in relation to the amount of water.

Boilers are not suitable to burn wood containing less than 12% water since gasification below this value cannot be controlled

Inferior calorific power of the main types of wood

Type of wood	Calorific power per 1 kg with 20% moisture		
	kcal	kJoule	kW/kg
Fir	3,900	16,250	4.5
Pine	3,800	15,800	4.4
Larch	3,800	15,800	4.4
Turkey oak	3,600	15,100	4.2
Poplar	3,500	14,760	4.1
Elm	3,500	14,760	4.1
Birch	3,750	15,500	4.3
Oak	3,600	15,100	4.2
Beech	3,450	14,400	4.0

We do not recommend using fresh wood since it will generate a lot of smoke, will radically shorten the life-span of the boiler and flue, and reduce the boiler's power by 50%.

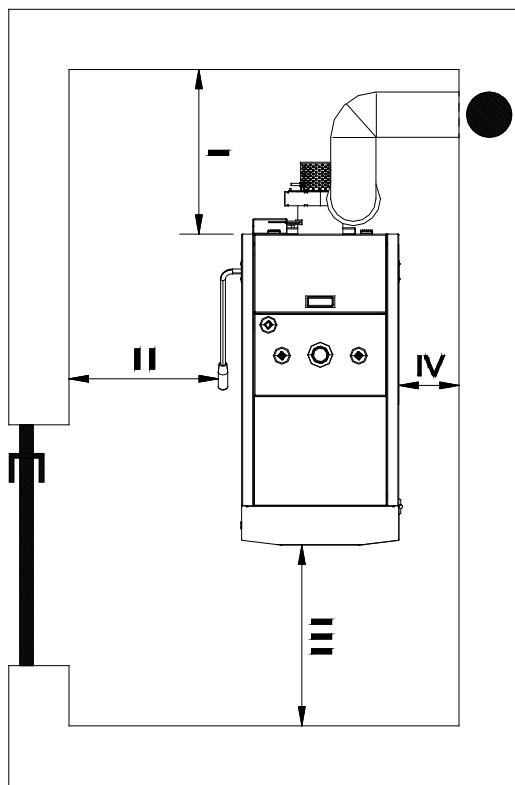


INSTALLATION

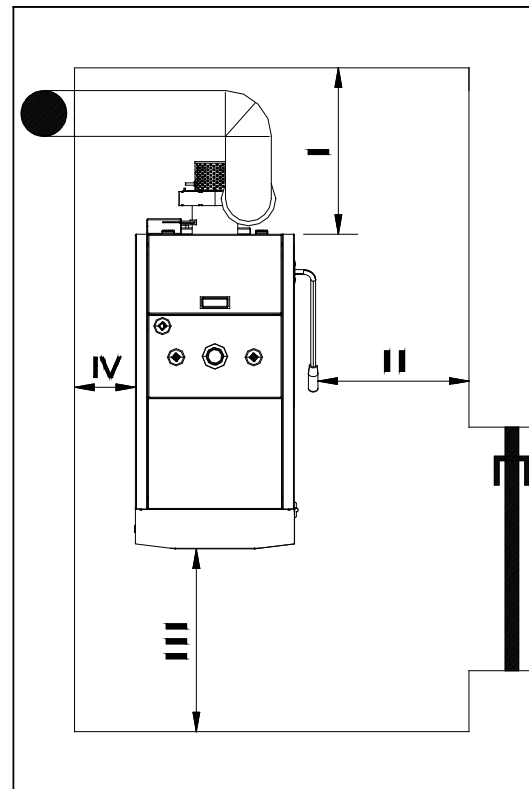
RECOMMENDED DISTANCES OF THE BOILER ROOM

In compliance with current regulations, boilers must be installed in rooms having sufficient ventilation required for combustion. It is not permitted to install boilers in living spaces (including corridors). The minimum overall dimensions of the opening for combustion air in the boiler room must be minimum 100 cm per boiler. Besides the boiler, the thermal control unit must also accommodate the inertial storage tank, hot water boiler, electrical panel and all water plant engineering.

	LNK 15	LNK 20	LNK 30	LNK 40
I	500	500	500	500
II	500	500	500	500
III	600	600	700	700
IV	150	150	150	150



Space required with the cleaning lever on the left - **standard version supplied.**



Space required with the cleaning lever on the right - **inversion by a qualified technician.**

FIRE PROTECTION FOR INSTALLATION AND USE OF THERMAL DEVICES



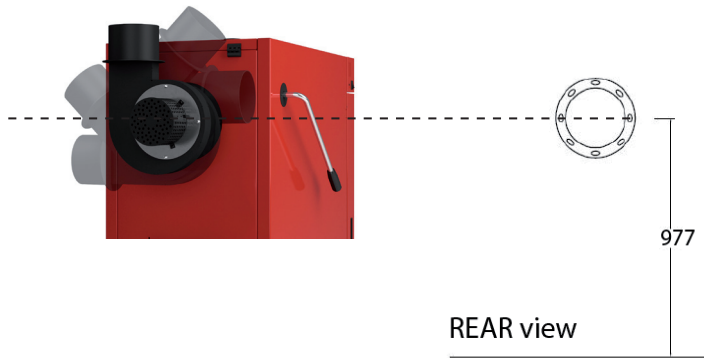
WARNING In situations of possible presence of gas, flammable vapours and with works that constitute temporary danger of fire or explosion (laying of linoleum with glue, PVC, etc.), the boilers must be disconnected before the said danger can be generated. **Objects made of flammable material must not be placed on the boiler or closer than the safety distance.**

SMOKE FAN ASSEMBLY

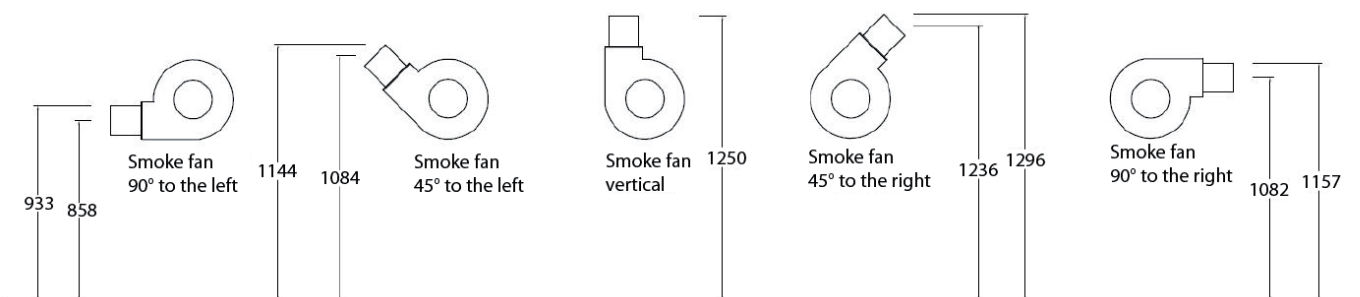
The forced draught smoke fan, complete with smoke fitting, is supplied separately with the boiler. During installation, the fan is secured to the discharge flange of the boiler together with the fastening nuts and perimeter gasket. To facilitate installation, the smoke inlet can be installed in different positions, with the option to rotate it by 180°.



ATTENTION – The smoke fan is supplied separately. Insert it into the smoke duct at the back, tighten the wing nuts completely, connect it to the power supply outlet and check if it operates correctly - **suction**.



This image shows all possible assembly positions with relative height indications. In this regard, please note that installation at a 90° angle generates more heat than discharge flow. Smoke return should be vertical or at an angle of 45°.



FLUE

The size, installation and connection of the flue to the boiler must be carried out by an authorised company “DM 37/08 Letter C” of fire engineers and chimney sweepers according to UNI 10683.

The flue must develop a sufficient draught to convey and transport combustion smoke outdoors at all operating speeds. It is important to have an adequately sized self-sufficient flue for the boiler to operate correctly.

Draught depends on combustion, power and duration of the boiler.

Fireplace draught is directly proportional to the diameter, height and coarseness of the internal wall. Smoke from another appliance must not flow into the flue connected to the boiler.



ATTENTION: comply with the provisions of Standard UNI10683 with regard to flue connection and flammable materials. The flue must be at a suitable distance from flammable or combustible materials by means of adequate insulation or an air gap.

SMOKE DUCT

The heat generator operates with negative pressure and is equipped with an output fan for smoke extraction. The generator must only have one discharge system. It is not permitted to have a flue that is shared with other devices.

Components of the smoke extraction system must be selected based on the type of device to install and according to:

- UNI/ TS 11278 in the case of metal fireplaces, with special reference to the designation.
- UNI EN 13063-1 and UNI EN 13063-2, UNI EN 1457, -UNI EN 1806: in the case of non-metal fireplaces.
- The smoke duct must be as short as possible.
- A T-fitting must be installed with a condensation collection cap at the bottom of the vertical section.
- The vertical duct can either be inside or outside the building. If the smoke duct is installed inside an existing flue, it must be certified for solid combustion.
- If the smoke duct is outside the building, it must still be insulated.
- It must be possible to inspect all sections of the smoke duct.
- Inspection openings must be provided for cleaning.

Connection must be carried out with stable, sturdy pipes that comply with all Standards and Regulations in force and according to the

provisions of Law, and secured well to the flue.

The internal diameter of the connection pipe must correspond to the external diameter of the smoke discharge section of the appliance (UNI 10683).

CHIMNEY POT

Flue draught also depends on the suitability of the chimney pot. chimney pots must meet the following requirements:

1. have a useful output section of more than double the length of the fireplace/pipe system into which it is inserted
2. be compliant in order to prevent rain and snow from penetrating into the fireplace/pipe system
3. be constructed in such a way that even in the case of winds from all directions and with any inclination, evacuation of combustion products (windshield terminal) is ensured.

BOILER CONNECTION TO THE MAINS POWER SUPPLY

The boiler is supplied with a power supply cable (plug NOT supplied) to be connected to a 230V 50 Hz outlet, possibly with a circuit breaker. The power supply outlet must be easily accessed. The electrical system must be compliant; in particular, check efficiency of the earthing circuit. Improper system earthing can cause malfunctions, which the manufacturer is not liable for. Power variations greater than 10% can cause product malfunctions.

The product must be installed and connected by qualified personnel in compliance with current regulations. (See Chap. SPECIAL WARNINGS).

NORDICA S.p.A. shall not be held liable for unauthorised product modifications as well as use of non-original spare parts.



WARNING: the boiler must be connected to the mains with an upstream differential line cut-off switch according to the regulations in force. Connect the power supply cable of the boiler to a bipolar switch with minimum distance between contacts of 3mm (Power supply 230 V~ 50 Hz; correct system earthing is essential).

The power supply cable must be checked regularly and kept in its original status. Any type of intervention on the safety circuits and single elements is forbidden so as not to compromise safe and reliable operation of the boiler. In the event of damage to the electrical system, decommission the boiler, disconnect it from the power supply and ensure professional repair is carried out in compliance with legal regulations.



ATTENTION, the power supply cable must NOT come into contact with hot parts.

Installation, relative system connections, commissioning and verification of correct operation must be carried out correctly by professionally qualified and trained personnel in full compliance with current national, regional, provincial and municipality regulations in the country where the appliance is installed.

ELECTRICAL CONNECTIONS



Boiler power supply 230 V / 50 Hz

Fuse 3,15 A

Smoke suction fan motor

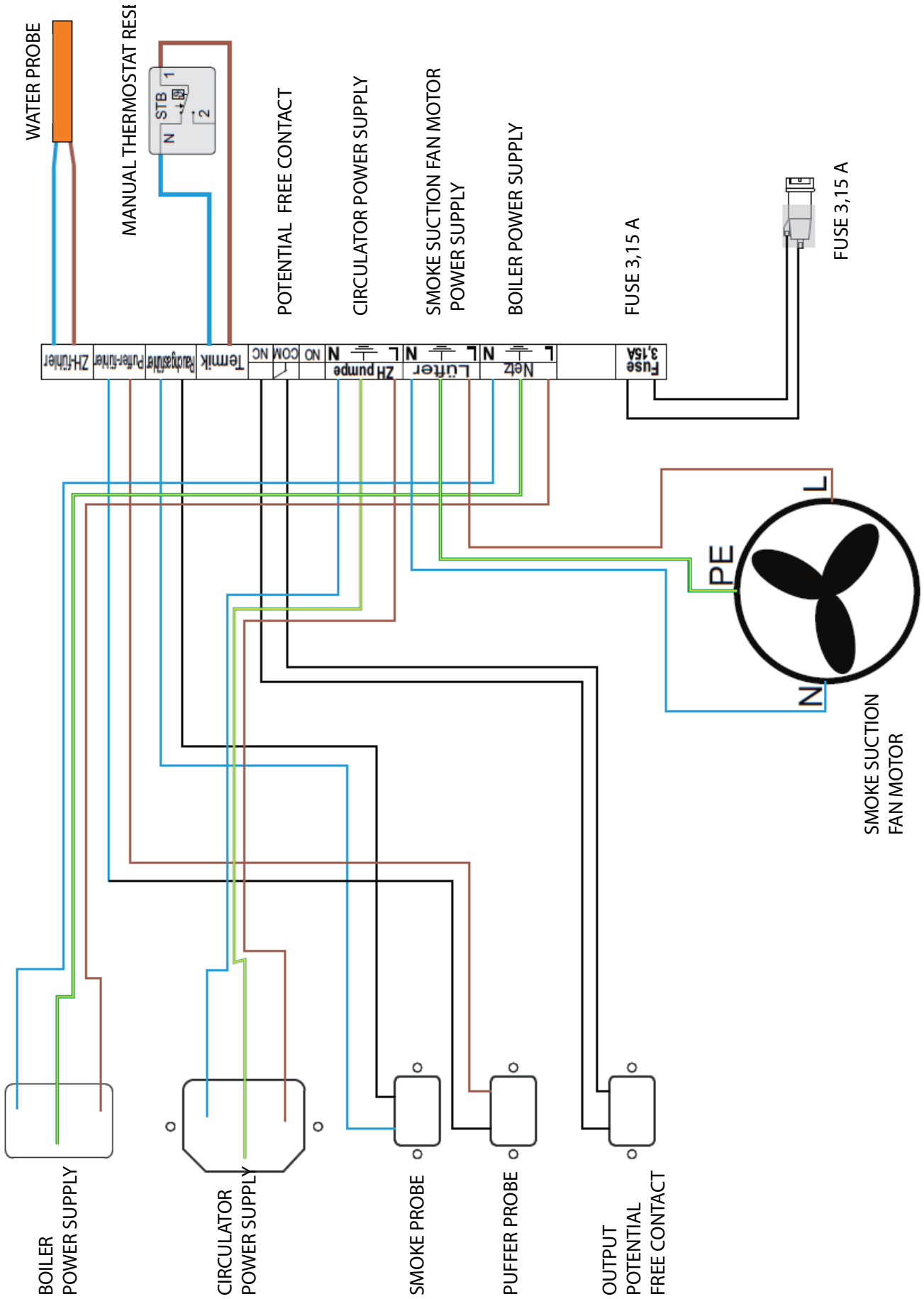
Circulator output

Smoke probe

Puffer probe

Output potential free contact

BOILER WIRING DIAGRAM

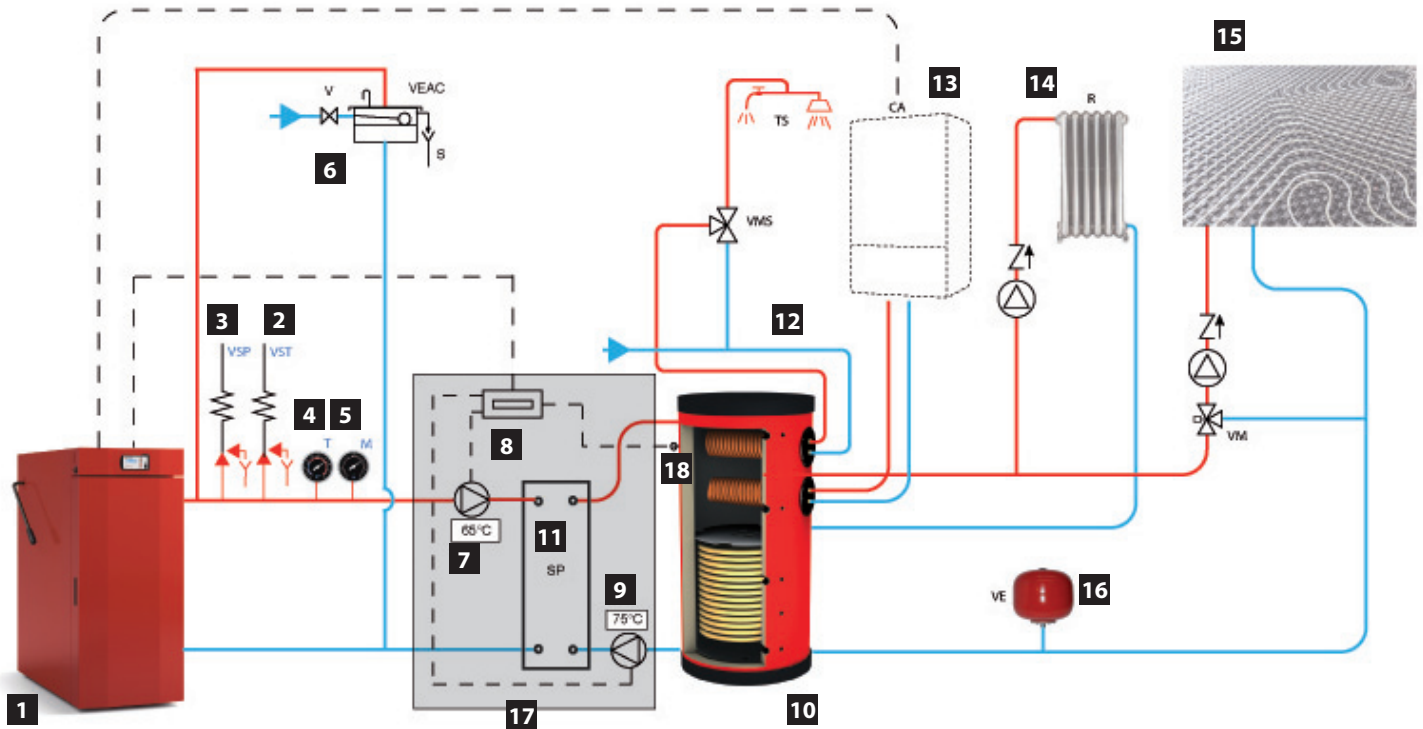


OPEN VESSEL INSTALLATION.

The diagrams are purely indicative, therefore they do not have design value.

Installation, relative system connections, commissioning and verification of correct operation must be carried out correctly by professionally qualified and trained personnel in full compliance with current national, regional, provincial and municipality regulations in the country where the appliance is installed.

Size the system correctly to avoid long pause times that would cause significant problems like the ones mentioned in the section regarding DOWN-FIRED BOILER OPERATION.



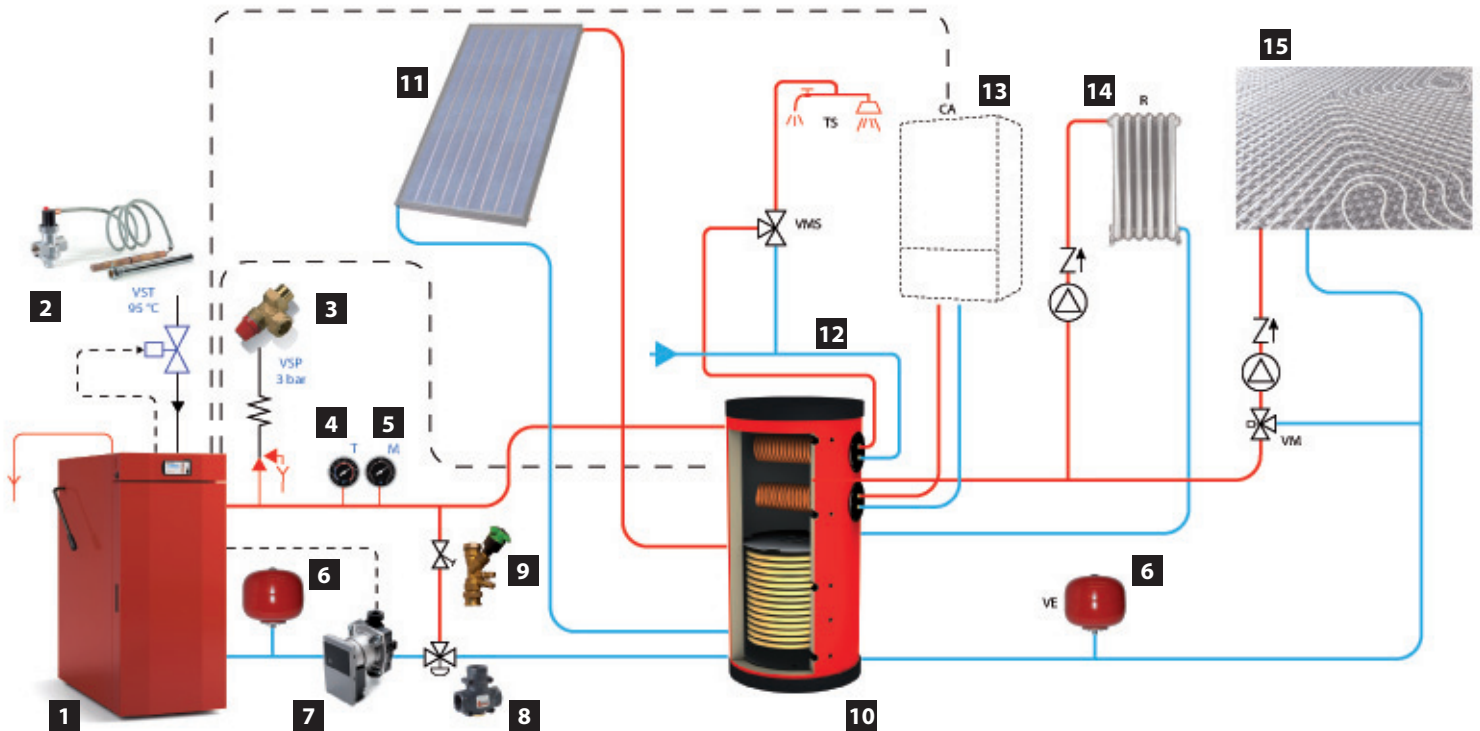
1	LNK down-fired boiler	
2	Thermal Discharge Valve	
3	Safety valve 1.5 bar	
4	Thermometer	
5	Pressure gauge	
6	Open expansion tank OET	
7	Circulator	
8	Heating device controller	
9	Circulator	
10	Puffer	
11	Plate Exchanger	
12	Domestic hot water production	
13	Auxiliary boiler (gas, methane, LPG or Diesel)	
14	Radiator system (high temperature)	
15	Radiant panel system (low temperature)	
16	Expansion tank	
17	Complete system separator KIT that can be supplied as an ACCESSORY	Can be coupled to boiler model LNK 15, LNK 20 and LNK 30. With regard to model LNK 40, consider a KIT with a suitably sized plate heat exchanger (PHE).
18	NTC probe - cable length 5 m	NOT included in the system separator KIT. Can be supplied as an OPTIONAL accessory

CLOSED VESSEL INSTALLATION.

The diagrams are purely indicative, therefore they do not have design value.

Installation, relative system connections, commissioning and verification of correct operation must be carried out correctly by professionally qualified and trained personnel in full compliance with current national, regional, provincial and municipality regulations in the country where the appliance is installed.

Size the system correctly to avoid long pause times that would cause significant problems like the ones mentioned in the section regarding DOWN-FIRED BOILER OPERATION.



1	LNK down-fired boiler	
2	Automatic DSA Thermal Discharge Valve	
3	Safety valve 3 bar	
4	Thermometer	
5	Pressure gauge	
6	Expansion tank	
7	Circulator	
8	Anti-condensation mixing valve for 60°C recirculation circuit	(can be supplied as an OPTIONAL accessory)
9	Balancing valve	
10	Puffer	
11	Solar panels	
12	Domestic hot water production	
13	Auxiliary boiler (gas, methane, LPG or Diesel)	
14	Radiator system (high temperature)	
15	Radiant panel system (low temperature)	

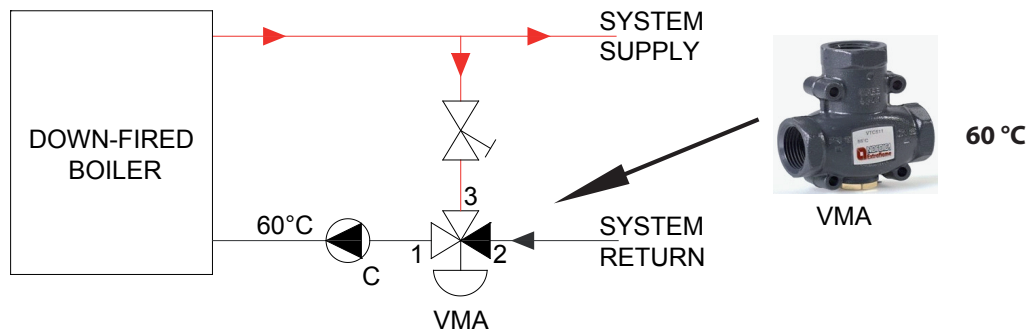
ANTI-CONDENSATION MIXING VALVE FOR 60°C RECIRCULATION CIRCUIT (CAN BE SUPPLIED AS AN OPTIONAL ACCESSORY).

The anti-condensation mixing valve is used in solid combustion heating devices and boilers since it prevents the return of cold water into the heat exchanger. Sections 1 and 3 are always open and, together with the pump installed on the return (R), they guarantee circulation of water inside the heat exchanger of the biomass boiler (Down-fired Boiler).

A high return temperature enables improved efficiency, reduces the formation of smoke condensation and prolongs the boiler's life-span. Once the valve's calibration temperature has been reached, section 2 is opened and the boiler's water goes to the system through the supply.



IMPORTANT: failure to install the device shall render the boiler's warranty null and void.



AUTOMATIC D.S.A. DISCHARGE DEVICE CONNECTION

According to EN 303-5, the safety heat exchanger of the LNK boiler must be equipped with a certified thermal discharge valve (**can be supplied as an OPTIONAL accessory**).

If the boiler exceeds a temperature of 95 °C, this valve enables inflow of cold water in order to prevent a further increase in the boiler's temperature.

A sufficient supply of drinking water must be guaranteed to the thermal discharge valve, and it must be carried out in accordance with best practice (public mains).

Domestic water systems are not permitted.

The thermal discharge valve must be assembled in the safety heat exchanger input (D.S.A.).

Make sure that the water pressure is constantly at min. 1.5 bar. If there are problems with the water pressure, the system must be decommissioned.

The safety heat exchanger must never be used for domestic hot water production/heating.



The diagrams are purely indicative, therefore they do not have design value. By law, this documentation is strictly private and confidential, and it is forbidden to reproduce, use and distribute it to third parties. Distribution that is not authorised by NORDICA S.p.a. will be subject to sanctions according to law.

IGNITION AND OPERATION

Before starting the boiler, you must make sure that the system has been filled with water and has been bled properly. For high quality and safe operation, the wood heating generators must be managed by complying with the instructions in this manual. Adults only can carry out the task of operator.



IMPORTANT - The amount of fuel must be limited when using combustion for the first time. It is permitted to pile a maximum amount of wood up to the upper edge of the ignition door. After first combustion, you must comply with the 6-hour downtime. Condensation can develop on first ignition and leak out - this is not a defect. This phenomenon disappears the next time the boiler is used.

PREPARE THE FUEL

Prepare logs of wood 50 cm long and having different thicknesses. Logs that are longer or round pieces of wood must be cut first!



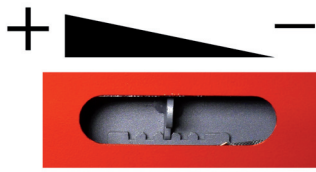
Fuel loading.

Open the loading and ignition door

1. Distribute a layer of cardboard or pieces of paper on the entire bed of the ceramic base of the upper combustion chamber
(attention: the nozzle openings must always be free!)
2. Pile a layer of ignition wood onto the cardboard or pieces of paper
3. Distribute a layer of cardboard or pieces of paper on the entire surface of ignition wood
4. Pile ignition wood until the entire ignition door is covered
5. Pile larger pieces of wood 50 cm long lengthwise into the boiler (larger logs must stay on top), limiting the air space between one log and another.



Basic combustion air settings



SECONDARY air controller
always leave it 50% open

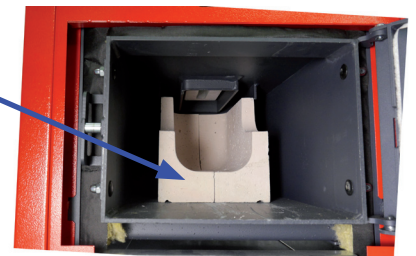
It is possible to visually check the flame from a glass peephole.
Never block the upper peephole.



Before igniting the boiler, it is necessary to ensure the ceramic stone is positioned correctly in the lower combustion chamber. Any residual ashes must be removed.

The ceramic stones must be placed as shown in the figure and pushed against the back.

Excessive ash residues prevent a complete thermal exchange between the smoke and the water, thus reducing performance.



SETTINGS FOR FIRST IGNITION

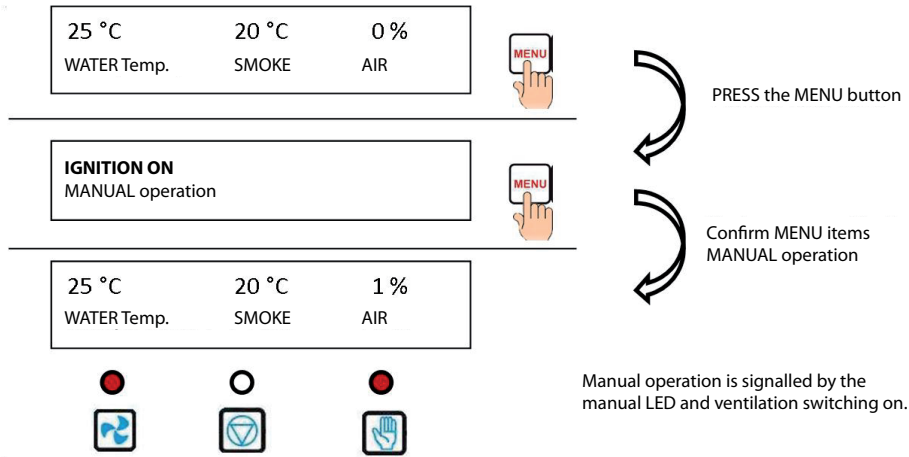
Once the power supply cable is connected, turn the POWER switch on the digital display to position (I).

Proceed with IGNITION, as described below.

IGNITION

TEMP. READ	SET. TEMP.		IGNITION ON	
xxx °C	80° - 85°C	MENU x 3sec	<input checked="" type="checkbox"/> BOILER TEMPERATURE	FLASHING
OFF			<input type="checkbox"/> PUFFER TEMPERATURE	
			▼	
			<input checked="" type="checkbox"/> BOILER TEMPERATURE	
			<input type="checkbox"/> PUFFER TEMPERATURE	FLASHING
			▼	
			<input type="checkbox"/> PUFFER TEMPERATURE	
			<input type="checkbox"/> SMOKE TEMPERATURE	FLASHING
			MENU	
			<input checked="" type="checkbox"/> SMOKE TEMPERATURE	

TEMP. TEMP. READ	TEMP. SMOKE	% SMOKE MOTOR OPERATION
25°C	20°C	0 %
WATER Temp.	SMOKE	AIR

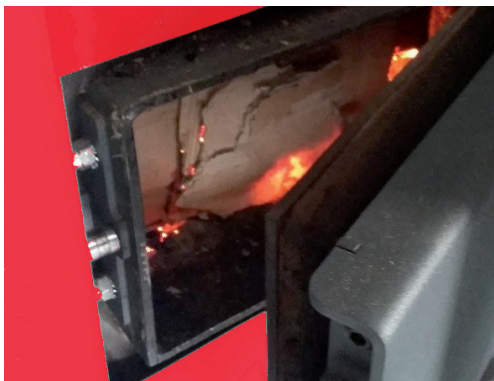


The fan will now start working.



If the fan does not start, this means the safety thermostat reset button has tripped. It must be released (press it with a tool through the hole).

Close the upper loading door and ignite the cardboard through the ignition door (centre).

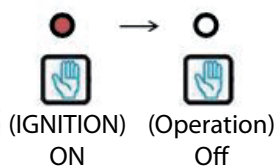


The ignition door must remain slightly open (Refer to the image above).
 The door must be closed upon reaching a smoke temperature between 180°C and 210°C.
 Depending on the residual moisture and diameter of the wood, this process can last up to 15 minutes.



If within 30 minutes after start-up of the ignition process the smoke temperature does not exceed 100 °C, the process is stopped and the error message, "ignition failure", is displayed. Repeat the steps described in the chapter regarding "IGNITION".

The passage from ignition to automatic operation is signalled by the manual LED switching off:



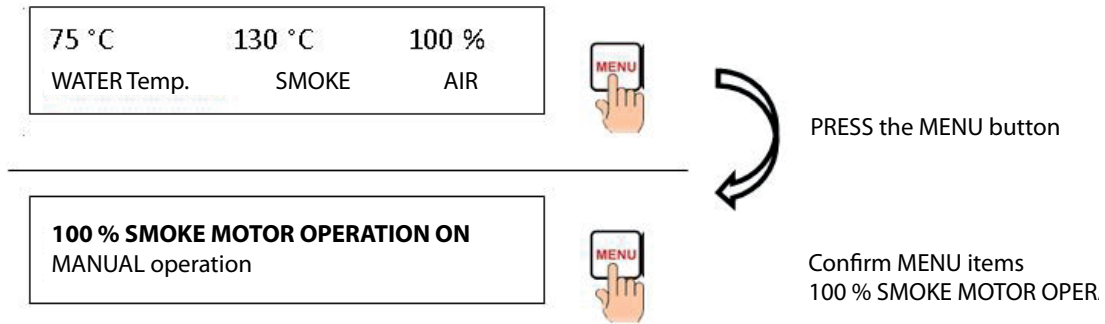
REFUELLING

Refuel with new wood only when the loading chamber has a bed of embers left.



If there is too much unburned fuel in the combustion chamber, it can flare up when the upper door is opened.

PRESS the MENU button twice to increase the smoke fan's suction power to 100% in order to prevent smoke from coming out from the loading chamber when the door is opened to refuel new wood.



Open the upper door of the loading chamber slightly by lifting the handle and waiting a few seconds in this position in order to enable the fan to suck up any smoke.

Now open the door in order to refuel with new wood, lowering the handle slightly to release the door's safety lock.

If there is a bed of embers, pile the new wood limiting the space between one log and another.

After refuelling, close the upper loading door.

The ignition door, which is located under the upper loading chamber door, must remain slightly open until the smoke temperature reaches 180 - 210 °C. Upon reaching the said temperature, the door must be closed.



IMPORTANT: When refuelling, you must keep in mind the smoke temperature. If the smoke temperature drops below 100 °C for more than 10 minutes, the boiler will go off. In this case, you must restart the boiler as described above in the section regarding "IGNITION".

OPERATION

If the actual temperature of discharge smoke exceeds the nominal value of 290°C, the fan decreases its power and modulates it with reduced power.

Once all the wood has burned, the fan stops after the smoke temperature has dropped below 100 °C for more than 10 minutes (default setting).

The boiler's circulator operates based on the differential temperature between the boiler and the Puffer. If the boiler's temperature drops below the temperature of the Puffer, the circulator stops.

If the Puffer probe is disabled, the circulator goes off during the cooling phase of the boiler 3°C below the temperature set in "SET PUMP IGNITION TEMPERATURE".

CLEANING

Warnings for cleaning and maintenance

In order to ensure perfect system operation, it is necessary to comply with the cleaning and maintenance frequencies described below. The people authorised to carry out all operations are as follows:

- user
- qualified technician

A “user” is an adult person that is trained to operate the boiler. This training can be given during commissioning by TAC or by qualified personnel.

Procedures indicating “qualified technician” must be carried out by TAC (Technical Assistant Centre) only.

Cleaning and maintenance table

Application	Daily	Weekly	Monthly	Yearly	By
Heat exchanger cleaning lever	x	x	x	x	User
Removal of ashes from the lower combustion chamber	x	x	x	x	User
Check nozzle openings	x	x	x	x	User
Removal of ashes from the upper combustion chamber		x	x	x	User
Check system pressure			x	x	User
Clean heat exchanger pipes			x	x	User
Check heat exchanger insulation panel cleaning gasket				x	Qualified technician
Clean smoke fan				x	Qualified technician
Clean smoke/smoke return pipe				x	Qualified technician
Remove steel loading combustion chamber profiles				x	Qualified technician
Clean boiler walls and primary air openings				x	Qualified technician
Check boiler door gaskets				x	Qualified technician
Clean smoke discharge sensor				x	Qualified technician
Check safety valves				x	Qualified technician
Thermal discharge valve check				x	Qualified technician

DAILY CLEANING

Use the cleaning lever

The lever mechanism on the left side of the boiler is used in order to clean the heat exchanger pipes. Move the cleaning lever up and down for the turbulators to move up and down inside the pipes.

This movement can be carried out between 5 - 10 times in a row (see Fig. 1)

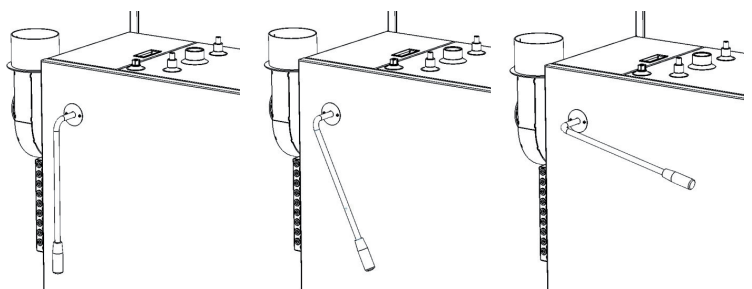


Fig. 1: Movement of the cleaning lever

Removing the ashes from the lower combustion chamber (see Fig. 2)

- **BOILER MODE:** Boiler in standby mode - Off
- Open the lower door
- Pull out the ash drawer half way.
- Use the cleaning shovel to direct the ashes toward the front part of the ash drawer.

Check nozzle openings

The nozzle openings between the upper and lower combustion chamber must always be free. Visually check.

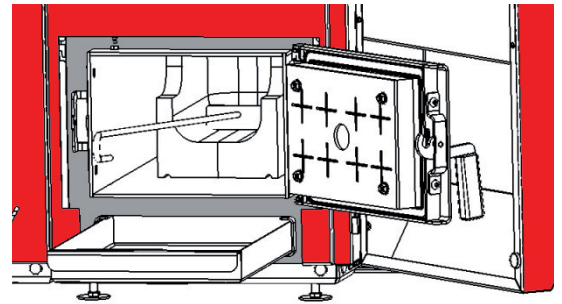


Fig. 2: Removal of ashes from the lower combustion chamber.

WEEKLY CLEANING

The following conditions must be ensured in order to execute weekly cleaning of the boiler:

- **BOILER MODE:** Boiler in standby mode - Off
- Boiler temperature below 50 °C

It is not possible to execute cleaning if the boiler is not in "OFF mode".

If the boiler is operating with wood, it cannot be stopped (wait until combustion has ended automatically).



Attention: extremely high boiler temperatures can cause burns/injury!

Removal of ashes from the upper combustion chamber (see Fig. 3)

- Open the centre door.
- Use the cleaning shovel to push the ashes out from the upper combustion chamber through the nozzle openings.

Any carbon residues as well as ashes up to approximately 5 cm can remain on the surface. This will in fact enable rapid ignition of subsequent refuelling and will protect against premature wear of the ceramic surface.

In order to ensure perfect flow of primary air, it is necessary to remove the ashes from under the removable steel profiles.

Check system pressure

When the system is cold, the pressure gauge must indicate 1 - 2 bar.

System pressure increases as the water temperature rises. Therefore, in these conditions, the pressure gauge must indicate between 1.5 and 2.5 bar.

If the system's pressure is too low, it must be increased to the set values by reloading the boiler.

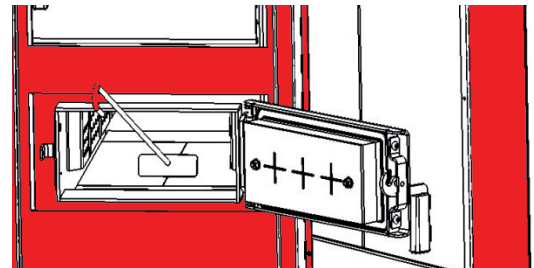


Fig. 3: Removal of ashes from upper combustion chamber

MONTHLY CLEANING

The following conditions must be ensured in order to execute monthly cleaning of the boiler:

- **BOILER MODE:** Boiler in standby mode - Off
- Boiler temperature below 50 °C

It is not possible to execute cleaning if the boiler is not in "standby mode - OFF".

If the boiler is operating with wood, it cannot be stopped (wait until combustion has ended automatically).



ATTENTION: extremely high boiler temperatures can cause burns/injury!

Cleaning the heat exchanger pipes

The service door is situated on the upper part of the boiler next to the smoke suction fan. It can be opened from the integrated handle. (see Fig. 4)

The wing nuts must then be removed from the isolating panel. (Fig. 5)

The panel is removed upwards from the handle.

This will expose the heat exchanger pipes and turbulators. (Fig. 6)



Fig. 4: Service opening



Fig. 5: Insulating panel



Fig. 6: Heat exchanger pipes with turbulators

Depending on the boiler mode, the turbulators are coupled (Fig. 7) or screwed on (Fig. 8).

The turbulators must be removed upwards from the pipes.

Then use the cleaning tools to free the pipes from dirt particles. These residues fall into the lower combustion chamber, from where they can be removed.

The collection drawer above the pipes must be cleaned with a vacuum cleaner.



Fig. 7: Coupled turbulator

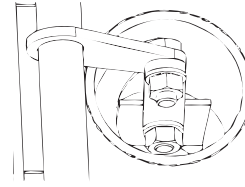


Fig. 8: Screwed turbulator

On completion of the cleaning operations, the turbulators are reinstalled and secured by following the sequence in reverse order.

To facilitate assembly and disassembly of the turbulators, it is possible to simultaneously remove the cleaning lever on the side of the boiler.

ANNUAL CLEANING

The following conditions must be ensured in order to execute annual cleaning of the boiler:

- **BOILER MODE:** Boiler in standby mode - OFF
- Boiler temperature below 30 °C
- No voltage on the boiler - Turn the main switch from **I** to **O**, to disconnect the mains power supply.

It is not possible to execute cleaning if the boiler is not in "standby mode - OFF".

If the boiler is operating, it cannot be stopped (wait until combustion has ended automatically!).



ATTENTION: extremely high boiler temperatures can cause burns/injury!



ATTENTION if the main switch is not enabled (boiler disconnected from power supply), electrical shocks are still possible on live parts.

The ceramic stones can be removed from the lower combustion chamber during annual maintenance.

After cleaning, they must be pushed back against the rear wall of the lower combustion chamber of the boiler.

(Fig. 9)

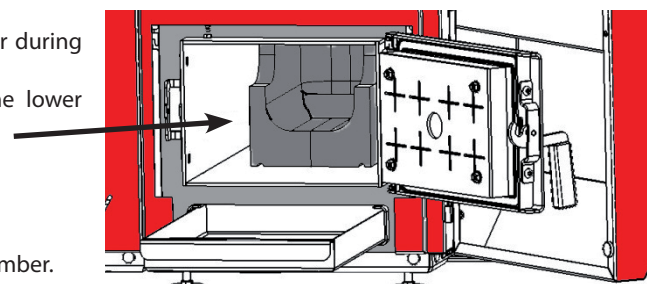


Fig. 9: Removal of the ceramic stones from the lower combustion chamber.

SMOKE fan

The smoke fan is made up of two parts and is flanged to the boiler's structure.



ATTENTION fan connected. Disconnect the mains power supply!

Loosen the connection screws between the fan, gasket and smoke discharge.

Carefully check that no ashes or soot have deposited onto the finned impeller of the fan. If necessary, clean with a vacuum cleaner or a brush.

1	Fan structure
2	Fan gasket
3	Fan motor
4	Smoke discharge sensor

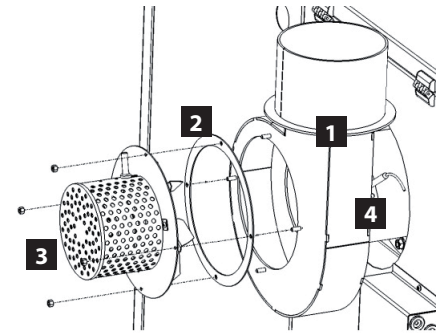


Fig. 9: Fan and smoke return

Check gasket on discharge flange

Make sure the perimeter gasket between the discharge flange on the boiler and the fan's unit are intact and complete.

Clean the combustion chamber

- Open the upper and centre door.
- Push upwards and remove the steel profiles.

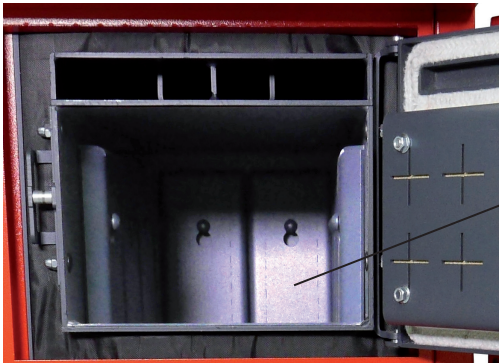


Fig. 10: Metal plates



Fig. 11: Boiler wall / primary air openings

After removing all steel profiles, clean the walls of the boiler and primary air opening from deposits of ashes and soot. Any ash residues must also be removed completely from inside.

Use the cleaning tools and an ash vacuum cleaner!

Check boiler door gaskets

Make sure that all perimeter gaskets on the boiler's doors are intact and complete, and sealed. A functional check must also be carried out regarding the status of the closing mechanisms (handles and hinges).

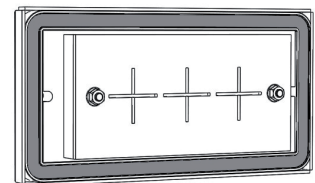


Fig. 12: Boiler door

Clean smoke discharge sensor

Loosen the fastening screw and remove the sensor from the smoke pipe.

Then clean the soot and dirt particles with a cloth.

Check safety valves (supplied as an OPTIONAL accessory)

Check the seal and operation of all system safety valves; make sure there are no water leaks. If operation is compromised, the valve must be cleaned or replaced.

Thermal discharge valve check (supplied as an OPTIONAL)

Make sure the thermal discharge valve is sealed and operating, meaning there is no water leak. For this reason, press the red button and manually wash the thermal discharge valve. If operation is compromised, the valve must be cleaned or replaced.



Fig. 13: Smoke discharge sensor

TROUBLESHOOTING

Failure signal on the digital display

To ensure trouble-free operation, the digital display is equipped with a series of safety elements. Failures are always accompanied by an audible signal.



IMPORTANT: a qualified technician must check the causes of all problems with the boiler.

Failure signal	Cause	Solution
Damaged PUFFER probe	- Defective PUFFER probe - PUFFER probe not connected	- Replace the sensor - Disable the sensor
Boiler temperature too high	- Boiler overheating	- Wait for the boiler to cool down. - Check the manual thermostat reset button. Press the manual thermostat reset button - see boiler operation faults
No Ignition	- Ignition process failure, discharge gas temperature < 100°C	- Restart the ignition process, restart the fuel.
Error 50 Hz	- Communication error between the fan and digital display	- Replace the condenser. - Check digital display operation

Failures during operation

Problem	Possible causes
Smoke leak	- check return temperature (min. 60 °C) - check fireplace draught (15 Pa) - check room air inlet supply - check wood moisture (not above 20 % and not below 12 %) - logs too big - check smoke channel development and cleaning - Set fan power based on fireplace draught
No boiler power	- check return temperature (min. 60 °C) - check fireplace draught (15 Pa) - check wood moisture (not above 20 % and not below 12 %) - logs too big - check wood load
Discharge smoke temperature too high	- check fireplace draught - adjust secondary air - insert fuel correctly into the boiler
Hot water temperature too high	- check system dimensions - check circulator dimensions and operation - check return temperature (min. 60 °C)
Condensation in boiler	- check return temperature (min. 60 °C) - check fireplace draught - check room air inlet supply - check wood moisture (not above 20 % and not below 12 %) - Set fan power based on fireplace draught

Problem	Possible causes
The heating system does not heat	<ul style="list-style-type: none"> - check system dimensions - check the requested thermal requirement - check circulator dimensions and operation - check return temperature (min. 60 °C)
The smoke fan does not work	<ul style="list-style-type: none"> - replace the condenser - check smoke fan motor - check smoke fan impeller - check for any tripped manual reset button

GUARANTEE TERMS

1. La Nordica S.p.A. products are guaranteed, within the European community, for 24 months from the date of purchase. Purchase has to be proved by means of a valid fiscal document issued by the seller (receipt, invoice or shipment document) identifying the purchased product and its purchase and/or delivery date.

WARNING: This conventional guarantee does not replace the guarantee regulated by the European legislation on consumer rights.

The conventional guarantee is only applicable to the Italian region and to those areas, within the European Community, where the Authorised Technical Assistance Centres are active (see the www.lanordica-extraflame.com website)

It is also limited to the state of residence of the consumer, which must coincide with the premises and/or registered office of the seller of the La Nordica S.p.A. product

These regulations do not apply if the product is purchased within commercial, entrepreneurial, or professional circumstances. In these cases the product guarantee will be limited to a period of 12 months from the date of purchase.

ITALIAN GUARANTEE

What must be done if there is a product malfunction:

Consult the instructions manual to make sure the malfunction cannot be solved by using the product correctly. Make sure the malfunction is included in those covered by the guarantee; otherwise the cost of the intervention will be borne entirely by the consumer. When requesting the intervention of the Assistance service at the Authorised Assistance Centre, always specify: - type of malfunction - model of the appliance - complete address - phone number

EUROPEAN GUARANTEE

What must be done if there is a product malfunction:

Consult the instructions manual to make sure the malfunction cannot be solved by using the product correctly. Make sure the malfunction is included in those covered by the guarantee; otherwise the cost of the intervention will be borne entirely by the consumer. Request the intervention of the Assistance service or the address of the Authorised Technical Assistance Centre to the seller; always specify: type of malfunction, model of the appliance, complete address and phone number

If the malfunction arises in the first 6 months of the product's life, the consumer has the right to have the product repaired with no expense. From the seventh to the twenty-fourth month, if a malfunction arises, the consumer will bear the cost of the call, while the seller will pay for the manpower and for any spare parts used.

2. If the malfunction is linked to external events and/or conditions such as, including but not limited to, insufficient capacity of the systems; wrong installation and/or maintenance by the personnel which hasn't got the skills prescribed by the laws of the country of residence of the consumer; negligence; inability to use the product and wrong maintenance by the consumer, with respect to what is reported and recommended by the instructions manual of the product, which is part of the sales contract, this guarantee will be void.

Damage to the product that cannot be related to manufacturing defects are also not included in this guarantee. Similarly are excluded defects related to incorrect operation of the flue, according to the legislation in force in the country at the moment of purchase. Other exclusions include all product defects due to carelessness, accidental breakdown, tampering and/or damage during transport (scratches, dents, etc.), interventions carried out by unauthorised personnel and further damage caused by incorrect interventions by the consumer trying to arrange the initial malfunction.

The following consumables are excluded by the guarantee: gaskets, ceramic or tempered glasses, cast iron grilles or coatings, refractory materials (e.g. Nordiker or others), painted, chrome-plated or golden parts, majolica ware, handles, the brazier and its related components. For Idro products the heat exchanger is not covered by the guarantee if a suitable condensation-proof circuit is not set up to ensure a return temperature of the device of at least 55°C. The guarantee excludes all the external components on which the consumer can directly operate during use and/or maintenance or that can be subject to wear and/or rust and stains on steel due to aggressive detergents.

If malfunctions are signalled which are not later confirmed during check by an authorised technician, the cost of the intervention will be borne entirely by the consumer.

3. If it is not possible to restore product conformity by repairing it, the product/component will be replaced, the guarantee expiration date and conditions will remain the same established when the product/component to be replaced has been purchased.

4. La Nordica S.p.A. cannot be held liable for injury or damage which may - either directly or indirectly - be caused to persons, animals and property ensuing from failure to observe all the instructions provided in the relevant instruction manual and the warnings regarding installation, use and maintenance of the product, that can also be downloaded on the website.

5. Interventions for adjusting and/or regulating the product for the type of fuel or other reasons are excluded by the guarantee.

6. If the product is repaired in one of the Authorised Technical Assistance Centres indicated by La Nordica S.p.A. and if the product is replaced, transport will be free of charge. If the technician can repair the product at the user's place of residence and they refuse, transport to the workshop and redelivery will be paid by the consumer.

7. After the 24 months of the guarantee have elapsed any repair intervention cost will be completely borne by the consumer.

8. In the case of disputes the only competent court is that of the La Nordica S.p.A. registered office - (Vicenza-Italy)

ADDITIONAL WARNINGS

- Only use the fuel recommended by the manufacturer. The product must not be used as an incinerator.
- Do not use the product as a ladder or supporting structure.
- Do not place laundry on the product to dry it. Any clothes-horse or similar objects must be kept at due distance from the product. Danger of fire or damage to the coating.
- The user is fully liable for any incorrect use of the product. The manufacturer bears no civil or criminal liability for incorrect use.
- Unauthorised tampering of any nature or replacement of spare parts of the product with non-original parts may endanger the operator and the manufacturer bears no civil or criminal liability for this.
- Large parts of the surface of the product can get very hot (door, handle, glass, smoke outlet pipes, etc.). Please therefore avoid coming into contact with these parts without wearing suitable protective clothing or using appropriate measures, such as heat protective gloves.
- DO NOT use the product with the door open or if the glass is broken.
- The product must be electrically connected to a system equipped with an operational earthing system.
- Turn off the product in the event of a failure or malfunctioning.
- Do not wash the product with water. Water may penetrate into the unit and cause faults in the electrical insulation. This can cause electric shocks.
- Installations not complying with the regulations in force, as well as incorrect use and failure to comply with the maintenance scheduled by the manufacturer, will invalidate the guarantee.



Riscalda la vita.

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PER CONOSCERE IL CENTRO ASSISTENZA PIU' VICINO CONTATTARE IL PROPRIO RIVENDITORE O CONSULTARE IL SITO
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QUALUNQUE MOMENTO E SENZA PREAVVISO, AL FINE DI MIGLIORARE I PROPRI PRODOTTI.
QUESTO MANUALE, PERTANTO, NON PUÒ ESSERE CONSIDERATO COME UN CONTRATTO NEI CONFRONTI DI TERZI.

THE MANUFACTURER RESERVES THE RIGHT TO VARY THE CHARACTERISTICS AND THE DATA REPORTED IN THIS PAMPHLET
AT ANY MOMENT AND WITHOUT NOTICE, IN ORDER TO IMPROVE ITS PRODUCTS.
THIS MANUAL, THEREFORE, CANNOT BE REGARDED AS A CONTRACT TOWARDS OTHER PARTIES.

LE FABRICANT SE RÉSERVE LE DROIT DE MODIFIER LES CARACTÉRISTIQUES ET LES DONNÉES REPORTÉES DANS CE
MANUEL À TOUT MOMENT ET SANS PRÉAVIS, DANS LE BUT D'AMÉLIORER SES PRODUITS.
PAR CONSÉQUENT, CE MANUEL NE PEUT PAS ÊTRE CONSIDÉRÉ COMME UN CONTRAT VIS-À-VIS DE TIERS.

DER HERSTELLER BEHÄLT SICH VOR, DIE IN DEN VORLIEGENDEN UNTERLAGEN WIEDERGEgebenEN EIGENSCHAFTEN
UND DATEN ZU JEDEM BELIEBIGEN ZEITPUNKT UND OHNE VORANKÜNDIGUNG ZU ÄNDERN, UM SEINE PRODUKTE ZU
VERBESSERN. DIESE ANLEITUNG KANN DAHER NICHT ALS VERTRAG DRITTEN GEGENÜBER ANGESEHEN WERDEN.

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PRESENTE MANUAL Y SIN PREVIO AVISO, CON EL OBJETIVO DE MEJORAR SUS PRODUCTOS.
POR LO TANTO ESTE MANUAL NO SE PUEDE CONSIDERAR COMO UN CONTRATO RESPECTO A TERCEROS.