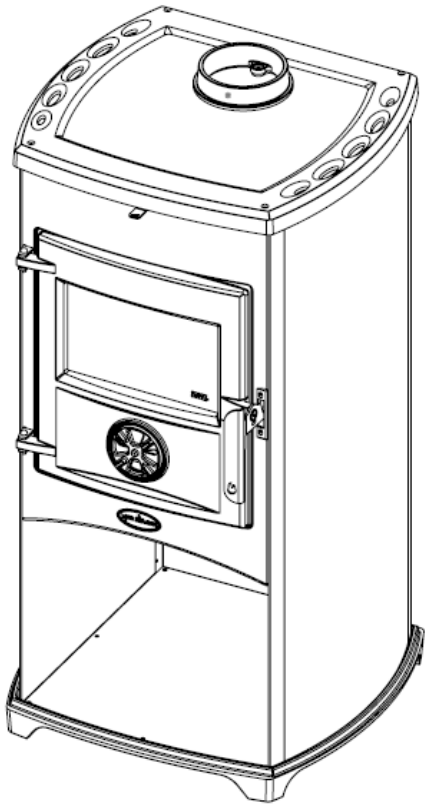
NORA

Owners's manual

INSTALATION, ADJUSTMENT AND OPERATING INSTRUCTION



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INTRODUCTION

Congratulations!

You have invested in energy efficient and high quality product – NORA wood burning stove.
Your purchase will provide you years of clean and comfortable heating with minimal maintenance.

Please read this manual in its entirety. Its purpose is to familiarize you with your stove safe installation, operation and maintenance. It contains information that will be useful to you now and in years to come, so keep it handy and refer to it as needed.

Be sure to maintain the designated stovepipe and stove clearances to walls, ceilings, hearth, and other combustible surfaces. This will help reduce the risk of fire.

Failure to follow these instructions can result in property damage, bodily injury, and even death!

Locate your stove in a safe, convenient, open area, away from traffic flow, doors and hallways,near to a chimney and chimney connector.

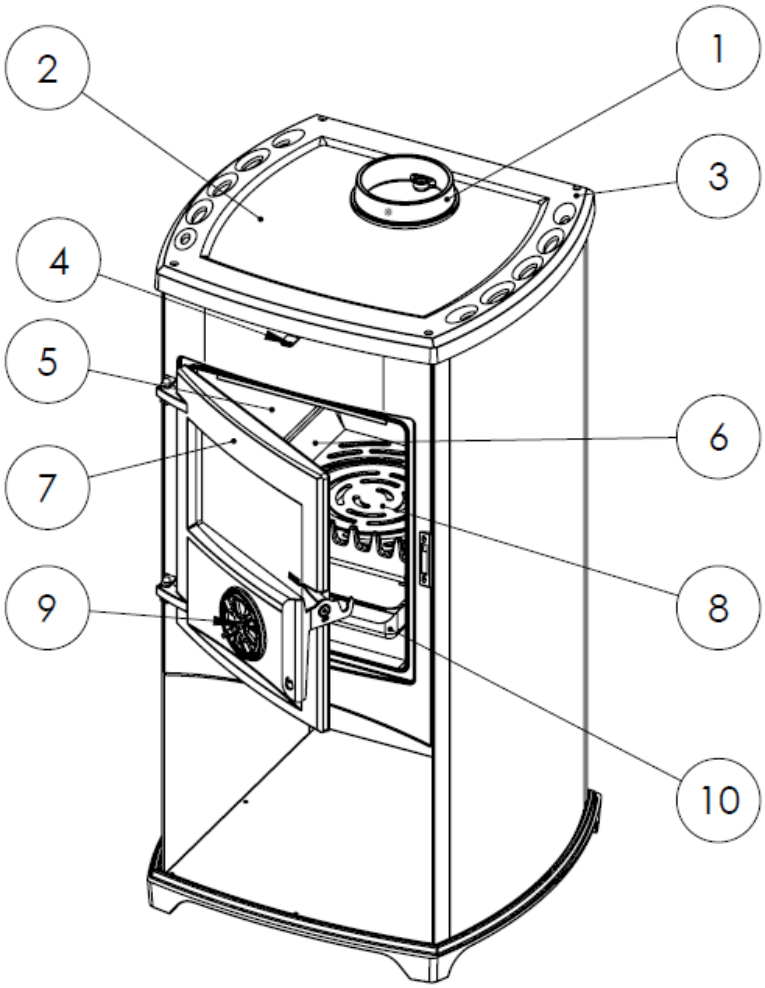
PURPOSE

NORA wood burning stove is designed for heating.

TECHNICAL DATA

Dimensions (W x D x H)	mm	479 x 461 x 905
Fire box dimensions (W x D x H)	mm	340 x 230 x 187
Thermal power	kW	8,56
Efficiency	%	75,5
Exhaust diameter	mm	Ø 120
Fuel type		wood, wood briquettes
Minimal distance from flammable materials		
Back	mm	450
Side	mm	350
Front	mm	1000
Temperature of the gases	℃	277.5
Fuel consumption	Kg/h	1,9
Dust content of exhaust gases	mg/Nm3	22,41
CO (13%O2)	%	0.0953%
Draught	Pa	12±2
Chimney connection position		Central on upper plate
Air regulation		Primary
		Secondary
Net weight	Kg	62

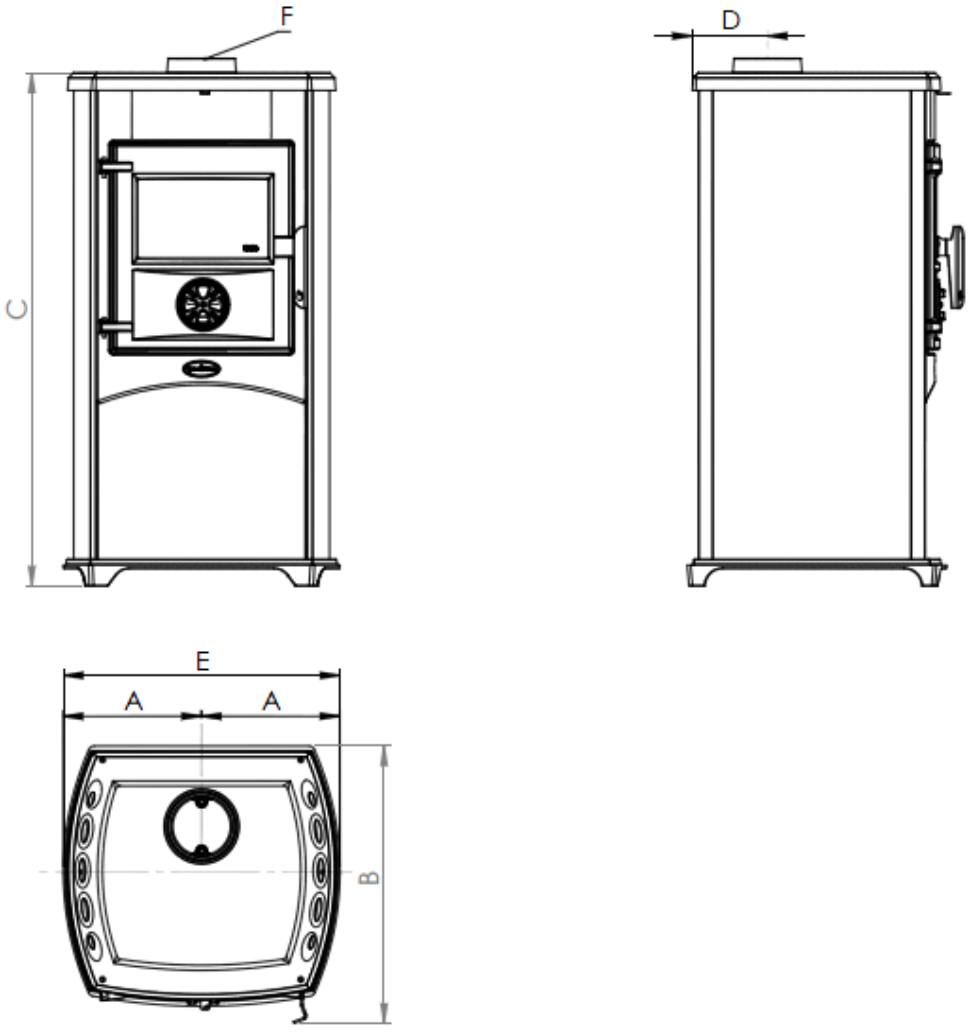
APPEARANCE AND PARTS



1. Flue outlet fume pipe
2. Top plate
3. Cast iron frame
4. Secondary air regulator
5. Refractory brick
6. Grate currier
7. Door
8. Grate
9. Primary air regulator
10. Ash pan

DIMENSIONS

A	B	C	D	E	F
238 mm	476 mm	880 mm	129 mm	476 mm	Ø120



INSTALLING OF WOOD BURNING STOVE

Unpacking and installing

TIM SISTEM is packing your stove with care so it could be savely transported. However, some damage can occur during transport.

When you receive your stove, unpack it carefully, inspecting your stove and all parts for damage. Make sure that all parts are included in the box. If any parts are damaged or missing, please contact your dealer immediately.

After choosing an appropriate spot, inspect this location to make sure that the stove will have enough clearance to combustible materials. These combustibles can include walls, floor, ceiling, cabinets, fireplace, and chimney. You must carefully consider the clearances to all of these combustibles before actually connecting your stove. When considering these clearances, also decide the kind of floor the stove will rest on. Depending on your floor, you can install your stove as it is, or use a floor protector, some types of flooring may require additional floor protection. A floor protector is any noncombustible surface laid on the floor underneath the stove that extends, 50cm beyond the fuel loading door and 10cm beyond each side of the stove.

INSTALLING THE STOVE

Stove must not be set up near the wooden parts, refrigeration parts, plastic furniture and other flammable materials because during operation (during fuel combustion) it achieves high operating temperature that is distributed on the outside of the furnace. Minimum distance between the stove and the surrounding elements is 50 cm, and the from flamable materials 80 cm.If the ground on which you set the stove is made of easily flammable material (wood, warm floor, laminate ...) you need to set under the stove a protetion sheet metal - lateral width of 10 cm and 50 cm in the front.

Because of it's weight, the stove must be installed on the appropriate base. If it does not satisfie necessary standard, you must take appropriate measures to make it possible (eg, weight distribution).

Connect the stove to a chimney and flue pipes through the connector on top of the furnace, so as to ensure adequate tightness and flow of smoke from the stove to the chimney. Flue pipe must not be drawn too deeply into the chimney that would reduce the cross sectional area and thus undermined draft in the chimney. Do not use reducers which reduce the cross section of pipe smoke.

The stove requires insertion of fresh air in the room where it is installed, with surface openings for insertion of fresh air should not be less than 0.4 dm ². The unit for fresh air set outside the common room for ventilation, which must be insured by door and gride.

Fans that work in the same room where the stove is installed may make interference wit the the stove. Also, all devices or ventilation that creates negative pressure in the room where the stove is installed, must be set in the way that does not make decompression that prevents normal operation of the furnace.

Before installing the stove, check the chimney drafts because it is a key factor in the proper functioning of the stove. Draft depends on the proper opration of the chimney and meteorological conditions. One of the easiest ways to check the draft in the chimney is with a candle flame, as shown in Figure 2 . Put a candle near the chimney connection drain. If the flame bends towards

drain, the draft is satisfying (Figure 2b). If the flame doesn't bend or bends a little, that indicates poor draft(Figure 2a).

If there is poor draft in the chimney (Figure 2a), check the chimney operation. The chimney should be located inside the building, and if it's located on the external walls of the building, it's recommended insulation chimney.

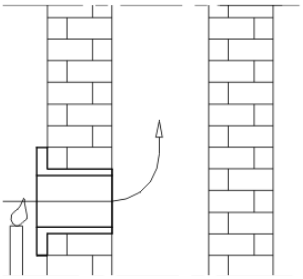


Figure 2a.

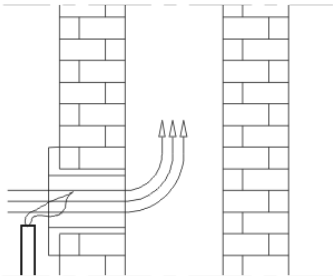


Figure 2b.

Disadvantages of the chimney (Figure 3):

1. The chimney is higher than the top of the roof, a small cross section of the output,
2. Excessive slope
3. A sudden change of direction of the flue channel
4. Stove or some other device connected to the same flue channel,
5. Bulges in the flue channel
6. Cracks
7. Alien body or accumulated grime,
8. Tube inserted too deeply,
9. Fan or other device that creates a vacuum in the room
10. Unsealed or opened cleaning hole

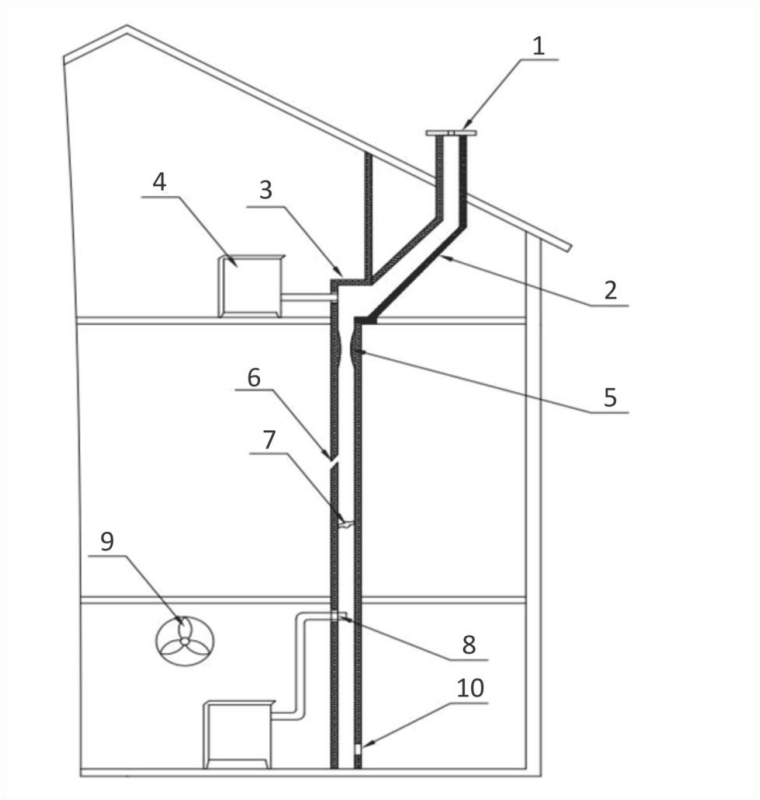


Figure 3.

PRECAUTION MEASURES

Read and understand this Owner's Manual thoroughly before installing and using NORA wood stove. Make sure to install your stove:

- According to the manufacturer's recommendations.
- In accordance with all applicable codes.
- With the proper sized chimney.

When using your stove:

- Warn children and others unfamiliar with wood-fired stoves about the danger of touching hot, radiating surfaces of your stove. For your additional safety, obtain hearth and stove guards through your local dealer.
- Keep pets away from the stove to prevent unnecessary hazards.
- Burn natural wood or briquttes only. Higher efficiencies and lower emissions result when burning air-dried, seasoned wood, as compared to green or freshly cut wood.
- Use caution when loading firewood into a hot stove.
- Keep the fuel loading door closed at all times except when loading wood.
- Keep the ash pan fully inserted.
- Clean the surface regularly.
- **Never modify this stove in any way.**
- **Never burn kiln dried wood, painted or treated wood, solvents, trash, plywood, colored or glossy paper, artificial logs, cardboard, coal, garbage or driftwood.**
- **Especially, do not burn coal in this stove!**

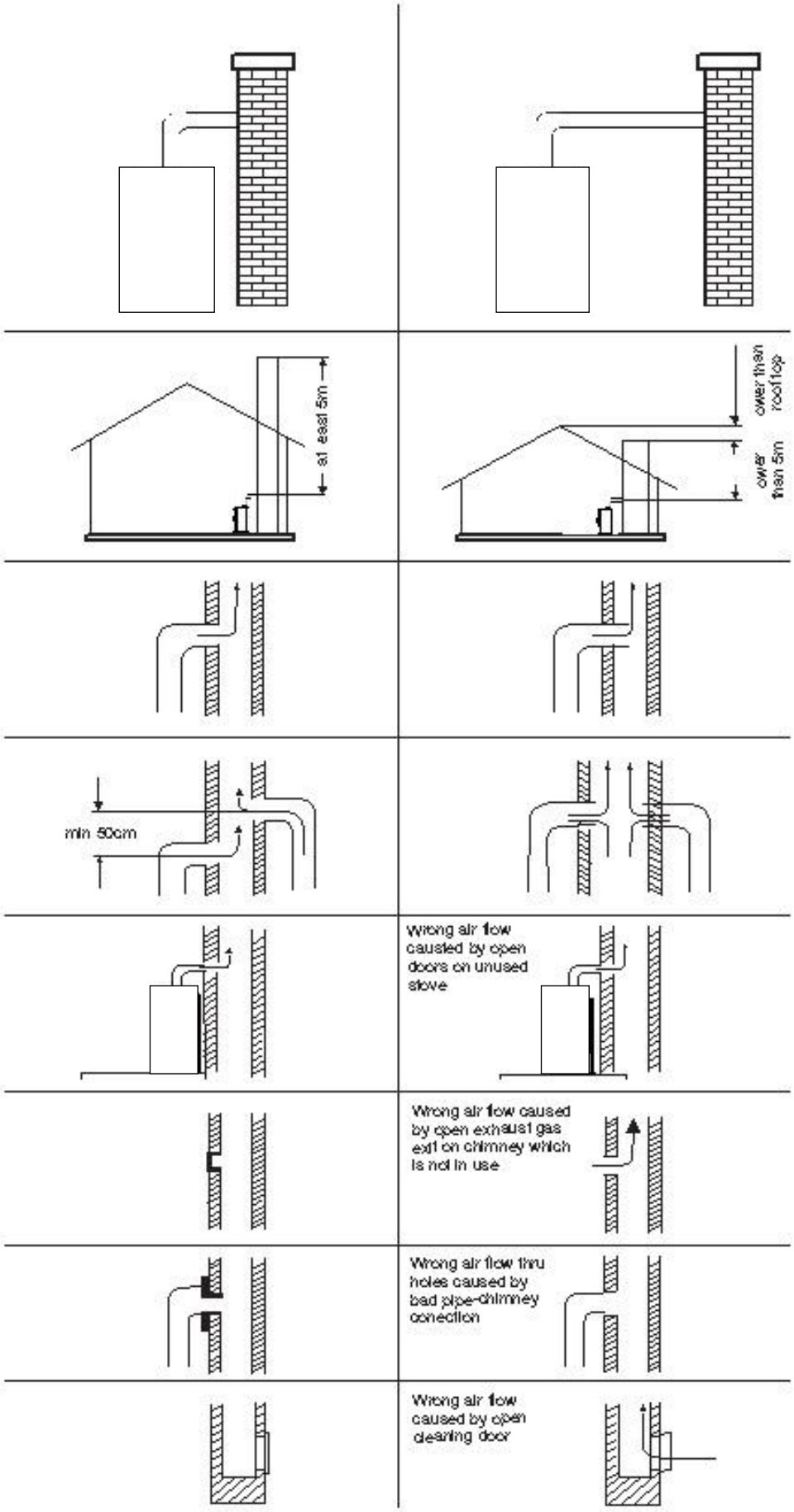
CONNECTION TO CHIMNEY

After getting familiar with your stove and its part and before you connect it to a chimney, check the quality of the chimey.

- Exhaust pipes and connection to chimney must go up ways
- Horizontal parts of fumepipes should not be longer than 0,5m and they should always rise away from stove a minimum of 10° torward chimeny.
- Fume pipes diameter should not get smaller.
- All connections must be tight , pipes and chimney must be clean and without any kind of dirt.
- Chimney must be protected from cold (insulated) especially in the case of metal chimney and in the case of exterior masonry chimney.
- Non vertical fume pipes which don't have insulation should not be longer than 1,25m

Chimney must fulfill the following conditions:

- Chimney goes above roof minimum 0,5m.
- Chimney should be higher than the first house next to it, higher than tree or any other obstacle.
- Interior chimney is preferable and exterior chimney must be well insulated.
- Chimney must be clean of any kind of dirt, bird nests or similar obstacles.
- Stovepipe must not be attached to deep in to chimney because it decrease fuming out .
- All unnecessary holes or cleaning doors on the chimney must be closed.


RIGHT
WRONG
at least 5m
lower than roof top
lower than 5m
min 50cm
Wrong air flow caused by open doors on unused stove
Wrong air flow caused by open exhaust gas exit on chimney which is not in use
Wrong air flow thru holes caused by bad pipe-chimney conection
Wrong air flow caused by open cleaning door

BUILDING A FIRE

Once you understand the controls of your wood stove and have chosen the appropriate firewood, you are ready to start a fire.

When you light your first fires, the wood stove will emit some smoke and fumes. This is normal "off-gassing" of the paints and oils used when manufacturing the wood stove. If you find it necessary, open a few windows to vent your room. The smoke and fumes will usually subside after 10 to 20 minutes of operation. The odor and smoke will end once the stove is "cured".

Starting fire

1. Open the door and place sheets of tightly twisted newspaper in the center of the firebox. Arrange kindling in a crisscross pattern over the newspaper. Kindling should be approximately ten pieces.
2. Fully open the primary air control
3. Light the paper under the kindling
4. Close the door and allow the fire to burn.
5. Once the kindling is burning, open the door and add logs.
6. Once the fire is burning well, use the primary air control to regulate the desired rate of burn.

Malfunction. Recommendations for its elimination

The following table shows the most common defects and recommendations for their removal.
Table: Showing the most common malfunctions, possible causes and ways of eliminating it.

Malfunction	Possible cause	Howe to remove it
Oven heats poorly	improper handling, Poor uptake	Read carefully and follow the instructions. Inthe case that despite all instructionshave been respected, malfunctions are still not removed, call the customer service
Difficulties in lighting fire	Closed regulator of air supply, Wet wood, Lack of oxygene	Open the regulator of air supplyand provide a supply of a primary air Use a dry wood Ventilate a room in order to provide a supply of fresh air
Smoke reenters into a room	Closed regulator of air supply, Insufficient draft, Remainings of ashes on a grid	Open the regulator of air supplyand provide a supply of a primary air Read carefully the instructions and apply advices how to provide a draft Clean the grid
Glass on a firebox door are getting sooty for a while	Wet wood Too much fuel Insufficient draft Closed intake of secundary air	Use a dry wood Check a suggested quantity of a fuel provided in a user’s manual Check a connection with a chimney Read carefully the instructions and apply advices how to provide secundary air

ADVICES FOR ENVIRONMENT PROTECTION

PACKAGING

Packaging material is 100% recyclable.

For a waste disposal of, act in accordance with local regulations.

Packaging material (plastic bags, polystyrene parts-polystyrene, etc.). Should be kept away from children, as a potential source of danger.

Take care of safe removing and disposing of wooden boards because they are connected with nails.

PRODUCT

The device is made of materials that can be recycled. When disposing the waste,act in accordance with enviromental laws in effect.

Use only the recommended fuel.

It is forbiden burning an inorganic and organic materials (plastics, plywood,textile, oiled wood, etc..), because the combustion releases carcinogenic materials and other toxics.

WARRANTY

Stove will work well only if you follow the given instructions.

TIM SISTEM is obligated to provide spare parts and eliminate interference with the stove that are covered by this warranty within the time limit not exceeding 45 days from the date of defect report . If the defect is not corrected within 45 days, you have the right to a substitution for a new product.

The warranty is valid from the date of purchase, as evidenced by duly completed guarantee certificate, and the shop's receipt.

The warranty for this product is 24 months.

TIM SISTEM is obliged to provide spare parts in due time after the stove is no longer produced.

This warranty does not cover damage caused by:

- **inadequate use of stoves;**
- **violating the instructions given in this manual;**
- **mechanical damage incurred due to inadequate storage and transport;**
- **due to mechanical damage caused by kicking, tumbling;**
- **due to inadequate exposure to rain, snow etc.;**
- **due to chemical damage caused by exposure to inflammatory agents such as**
- **oil and oil products, alcohol, solvents, paints;**
- **due to natural disasters such as lightning, floods, fire;**

The parts subjected to wear, such as braiding (glass), gaskets, rubber parts (rubber feet, spacers), are not covered by this warranty.

All malfunctions report in written or orally by telephone, on the address listed below:

Distributor / Authorized Service :

TIM SISTEM d.o.o.