

INSTALLATION INSTRUCTIONS AND INSTRUCTIONS ON HOW TO USE

ELECTRICAL SAUNA STOVES – NM 450, NM 600 – NM 800, NM 900

1. THE ELECTRICAL SAUNA STOVE PACKAGE INCLUDES:

1. Sauna stove jacket
2. Stone basket with control device
3. Mounting plate + anchor screws
4. Installation instructions and instructions how to use

2. BEFORE INSTALLATION:

Check the following:

- The sauna stove is the right size (kW) for the size of the sauna (cu m).
- Table 1 shows the volumes of the sauna for the different types of stoves.
- If the sauna has non-insulated surfaces, for instance brick, tile or glass, 1.5 cu m must be added to the sauna volume for each square metre of wall on the basis of which the effect needed for the sauna stove is defined according to Table 1.

The volume values of the sauna according to Table 1 must not be exceeded or lowered.

- The minimum height of the sauna and the distances of the minimum protected areas have been defined in Table 1.
- Make sure that there is a sufficiently steady mounting plate for the anchor screws. A thin panel alone is not enough. Additional supporting rails behind the panel or reinforcement boards on the top of the panel which are fastened to the wall support can be a reinforcement.
- Sauna stoves NM-450 and 600 can also be installed in a wall recess where the protected areas must be considered according to Figure 1.
- Stoves NM-800 and 900 must allowed to be installed in the wall recess.

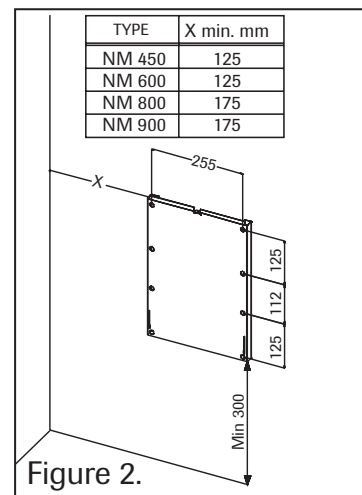
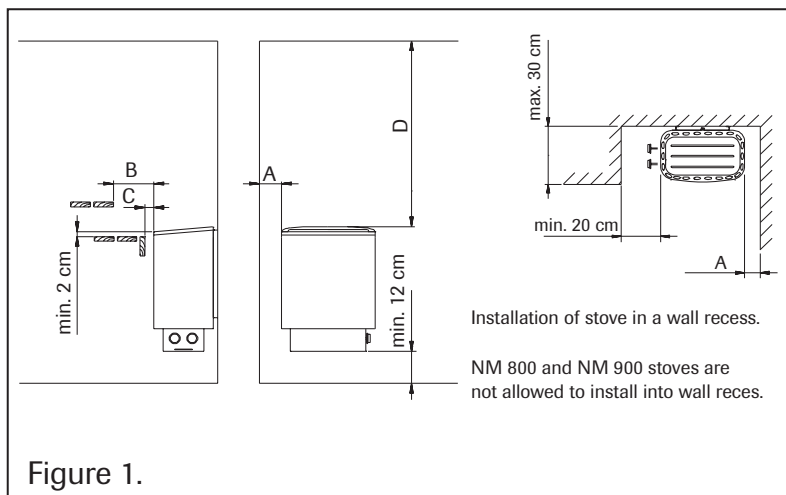
ONLY ONE ELECTRICAL STOVE MUST BE INSTALLED IN THE SAUNA.

Scale 1. Installation data for the sauna stove NM

Stove modell	Effect kW	Steam room			Minimum protection distances to the stove					Stone amount kg	Connection*)	
		Volyme		Height min cm	Sides	In front	In front	Ceiling	Floor		400V 3N	Fuses
		min m ³	max m ³		A **) cm	B **) cm	C **) cm	D **) cm	E **) cm		mm ²	A
NM 450	4,5	4	7	190	5	5	2	115	12	30	5x1,5	3x10
NM 600	6	6	9	190	5	8	2	115	12	30	5x1,5	3x10
NM 800	8	8	13	190	10	10	2	115	12	30	5x2,5	3x16
NM 900	9	9	15	190	10	10	2	115	12	30	5x2,5	3x16

**) See Figure 1

*) The rubber cable H07RN-F or similar as a connection cable



3. INSTALLATION:

- Fasten the mounting plate to the wall with the screws which follow the delivery according to the picture 2.

Note! If you want to change from right to left hand work according to Stages 1, 2 and 3. If there is no need to change move to Stage 4.

CHANGE FROM RIGHT TO LEFT HAND (only if necessary)

Stage 1:

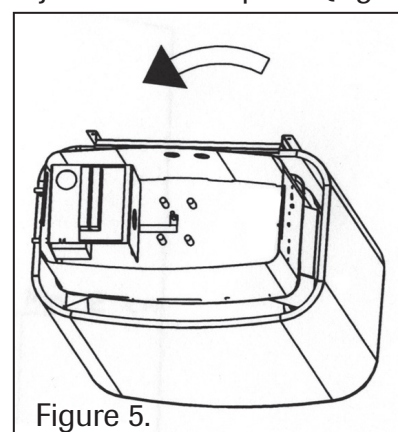
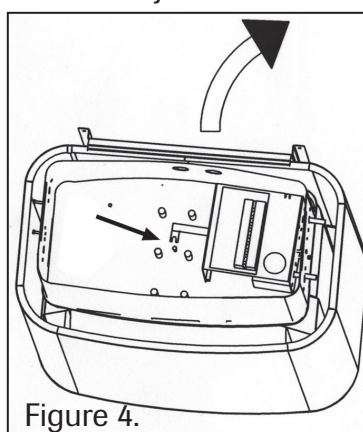
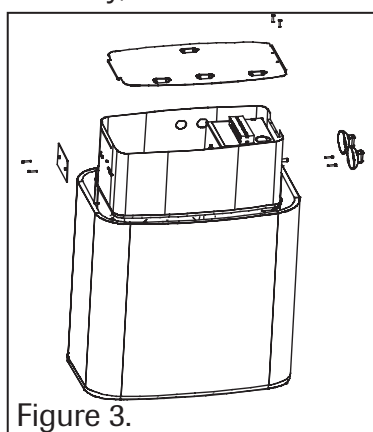
- Loosen the anchor screws of the coupling box.
- Pull the adjusters off gently, and open the attaching screws of the terminal block, which are behind the adjusters.
- Open the optional adjuster's cover plate's screws which are on the other side of the junction box (Figure 3).

Stage 2:

- Unscrew the attaching screw connecting the middle resistor and the terminal block which is located at the bottom of the junction box. This will enable you to turn the leg of the terminal block to the side from underneath the screw (Figure 4).

Stage 3:

- Turn the adjusting module carefully around with its cords attached and install the axis of the adjuster through the holes on the other side of the junction box.
- Screw together the terminal block and the cover plate of the optional adjusters facing each other.
- Finally, attach the bottom plate of the junction box and adjusters to their place (Figure 5).



Stage 4: ELECTRICAL CONNECTION

- The connection of the sauna stove to the electrical network can only be carried out by a qualified electrician in accordance with the valid regulations.
- A rubber cable of type H07RN-F or similar must be used as a connection cable. The cross-sectional surface of the cable and the size of the fuse can be seen in Table 1.
- The cross-sectional surfaces of the wires which are connected from the sauna stove to the heating and signal lights must correspond to the feed cable of the sauna stove.
- First connect the connection cable to the terminal strip in the connection box of the sauna stove.
- Turn the stone room+electrical box upside down.
- Open the bottom of the electrical box.
- Connect the connection cable.
- Fasten the bottom of the box.
- Turn the stone room+electrical box right side up.

Stage 5: INSTALLATION ON THE WALL

- Draw in the lugs on the rear side of the sauna stove through the mounting slots of the mounting plate on the wall (Fig.6A).
- Push the upper edge of the mounting plate between the jacket and upper frame of the sauna stove and make sure that the lugs of the stove are wedged into the slots of the mounting plate on the wall (Figure 6B).
- Tighten the upper edge of the sauna stove with a locking screw (Figure 6C).
- The stone basket is now locked in the jacket and on the mounting plate of the sauna stove.

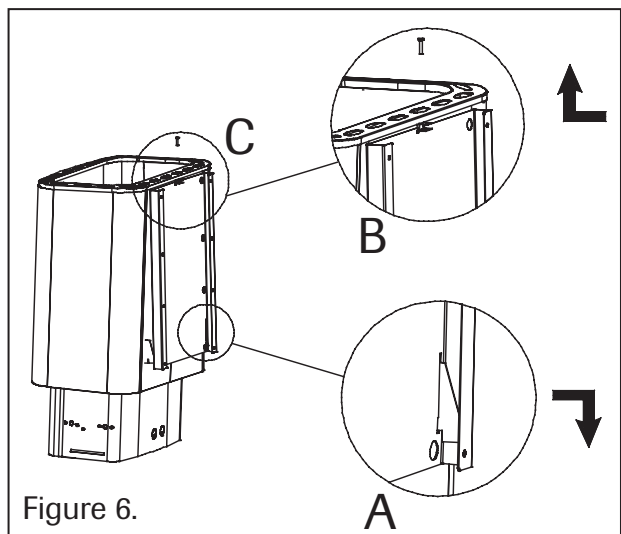


Figure 6.

Stage 6: TO PILE THE STONES

- The stones are piled on the top of the fire grate in the stone capacity, in between the heating elements (resistors) so that the stones support each other. Please make sure that the resistors are not supporting the weight of the stones.
- When piling the stones, make sure that the resistors are not bending and there is sufficient air circulation.
- Do not pile the stones densely. A stone basket which has been filled too densely causes overheating of the resistors (= a shorter lifetime) and slows down warming up the sauna.
- The stone size diameter suitable for the sauna stove is 4-7 cm.
- The stones must completely cover the heating resistors (Figure 7).

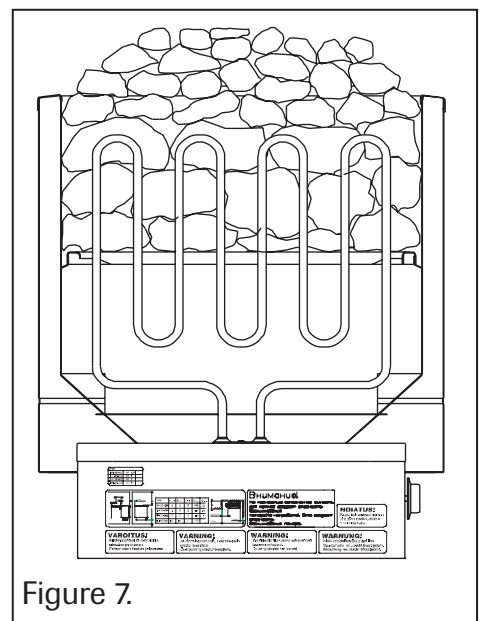


Figure 7.

A STONE BASKET WHICH HAS NOT BEEN FILLED COMPLETELY CAUSES A FIRE RISK!

Use of ceramic stones that are light, porous and of the same size is prohibited, as they can cause the resistors to heat up too much and break. Similarly, soft soap stones cannot be used as sauna heater stones.

BEFORE YOU CONNECT THE SAUNA STOVE ALWAYS CHECK THE STEAM ROOM.

7. HOW TO USE THE CLOCK SWITCH:

- The clock switch is on the lower part of the sauna stove. It can be used both for switching on and as a timer. The warming time desired, 1-4 hours, or a preselected time, 1-8 hours, can be adjusted with the clock switch.

Functional example:

- When switching to number 2 on the light area of the scale, the sauna stove is immediately connected to function and this function will end in 2 hours.
- When switching to number 4 on the black area (the preselection area), the sauna stove is connected to function in 4 hours. The stove will then be switched on for about 4 hours.
- The function of the sauna stove can be ended by switching counter-clockwise to position 0.

8. TEMPERATURE REGULATOR:

- The temperature regulator is on the lower part of the sauna stove. The temperature desired in the sauna can be selected using the regulator. The broadening line on the scale shows the rising temperature. When switching clockwise, the temperature is rising and, when switching counter-clockwise, the temperature is falling.
- The sauna warms up most rapidly by switching the temperature regulator to the max. position.
- The size of the sauna, the starting temperature, the thermal insulation, the non-insulated surfaces and how the stones have been piled effect how soon the sauna warms up.

9. TEMPERATURE RESTRICTOR:

- If the temperature in the sauna is rising dangerously high the temperature regulator switches off the stove. The temperature regulator can be switched on again by pressing a blunt tool in the hole with a diameter of 3 mm at the end of the electrical box (Figure 8).
- If the sauna stove does not start functioning again, check if the clock switch has been switched off and the fuses of the stove on the fuse board have not blown.
- If the sauna stove does not warm up after these measures please contact the service department.

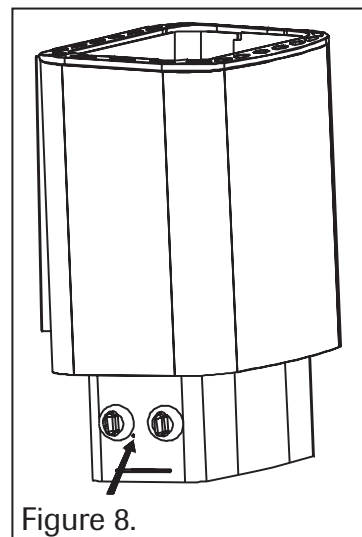


Figure 8.

10. AIR CONDITIONING IN THE SAUNA:

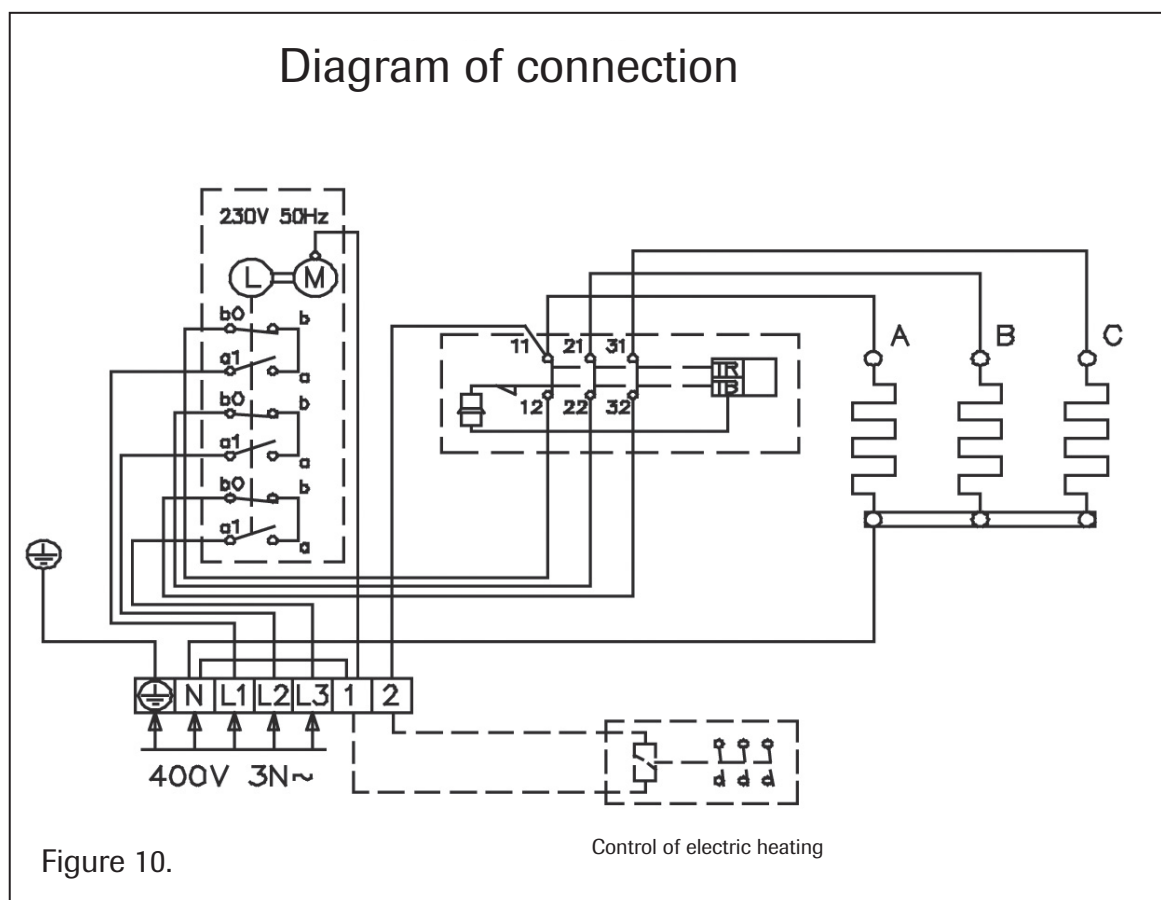
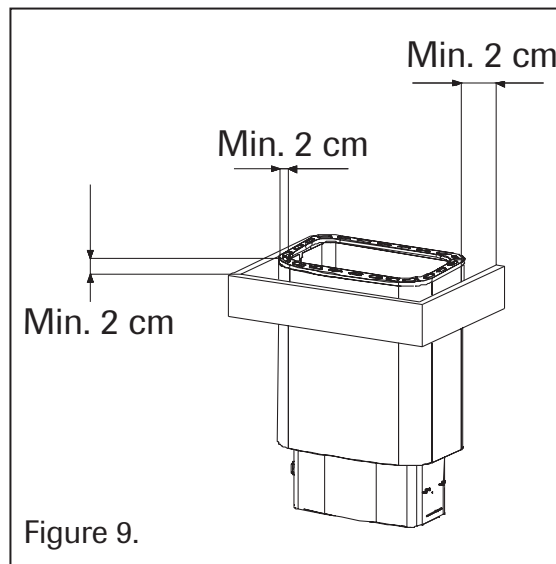
- The air conditioning in the sauna must be arranged as effectively as possible to get sufficiently oxygen and fresh air. The best way is to direct fresh air near the sauna stove (not closer than 50 cm).
- The ventilating air pipe must be equipped with an adjustable valve.
- The size of the bleed valve must be twice as big as the fresh air valve. The bleed valve can be installed on the wall opposite the sauna stove at least 20 cm higher than the fresh air valve.

11. CONSTRUCTION OF THE SAUNA:

- The sauna must have good thermal insulation, especially on the ceiling through which the steam mostly tends to evaporate. Owing to the damp, it is recommended to protect the thermal insulation of the sauna with something which does not let damp penetrate, for instance aluminium foil. The cladding must always be wood.

12. SAFETY RAIL:

- If needed, a safety rail can be built round the sauna stove (Figure 9). We recommend wood for this, in this case, the minimum distances stated for flammable constructions must absolutely be followed. Incorrect installation can cause a fire risk.



During the insulation resistance measurement of the sauna heater, the heater might leak. This is due to the dampness that has seeped the insulator material of the heating resistors during storing or transportation.

The resistors will be dry only after they have been warmed up a few times.

Do not switch the electrical sauna heater on using the fault current switch!