

ELECTRON 450, ELECTRON 600, ELECTRON 800, ELECTRON 900

1. ONE ELECTRIC SAUNA STOVE PACKAGE COMPRISES:

1. Stove with control equipment
2. Fixing plate + fixing screws
3. Sensing element
4. Control unit + stand
5. Sauna stove installation and instruction manual

2. PRIOR TO INSTALLATION

Perform the following checks:

- The stove is the right size (kW) for the size of the sauna (m³).
- Table 1 shows the sauna volumes for different stove types.
- For every 1 m² of uninsulated brick, tile or glass wall surface in the sauna, increase the sauna volume by 1.5 m³ when choosing the required stove wattage from Table 1.

The sauna volumes indicated in Table 1 are both maximum and minimum values.

Table 1. Installation data for ELECTRON stove

Stove type	Wattage kW	Sauna			Minimum safety distances for stove					Amount of stones kg	Connection*)	
		Volume		Height min cm	Sides A **) cm	Front B **) cm	Front C **) cm	From ceiling D **) cm	From floor E **) cm		400V 3N mm ²	Fuses A
		min m ³	max m ³									
ELECTRON 450	4,5	4	7	190	5	5	2	120	5	30	5x1,5	3x10
ELECTRON 600	6	6	9	190	5	8	2	120	5	30	5x1,5	3x10
ELECTRON 800	8	8	13	190	10	10	2	120	5	30	5x2,5	3x16
ELECTRON 900	9	8	15	190	10	10	2	120	5	30	5x2,5	3x16

**) See Fig. 1

*) Use a rubber sheathed connection cable of type H07RN-F or corresponding

- Table 1 indicates both the minimum height of the sauna and the minimum safety distances for the stove.
- Make sure the fixing plate is screwed to a solid base. Wall panelling is not solid enough, and needs to be reinforced with either additional studs under the panel or reinforcing boards fixed to the wall studs on top of the panel.
- The stove can also be installed in a wall recess, cf. Fig. 1.

ONLY ONE ELECTRIC STOVE TO BE INSTALLED IN A SAUNA.

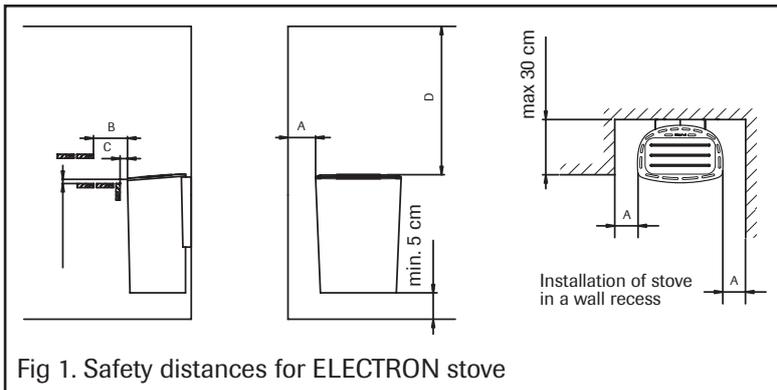


Fig 1. Safety distances for ELECTRON stove

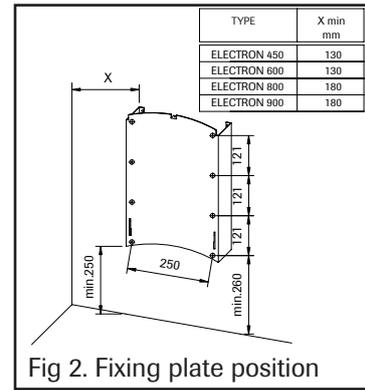


Fig 2. Fixing plate position

3. INSTALLATION:

3.1 Installation of stove and sensing element

- Fasten the fixing plate for the stove on the wall as shown in Fig. 2. Use the 2 screws included in the delivery.
- Electrical connection of the stove may only be carried out by a qualified electrician in compliance with valid regulations.
- The connection cable shall be a rubber sheathed cable of type H07RN-F or corresponding. Cable size and fuse rating as indicated in Table 1.
- Connection of connection cable
 - turn the stove bottom up
 - open the base of the electrical box
 - plug in the connection cable
 - There is socket for control unit and element. Put sockets for connection plugs. (Fig. 3.1)
 - Install cable clamps to electrical box wall.
 - replace the base of the electrical box
 - turn the stove upright
- Install the sensing element on the wall. Cf. Fig. 3.2.
- The wiring for the sensing element can be embedded.

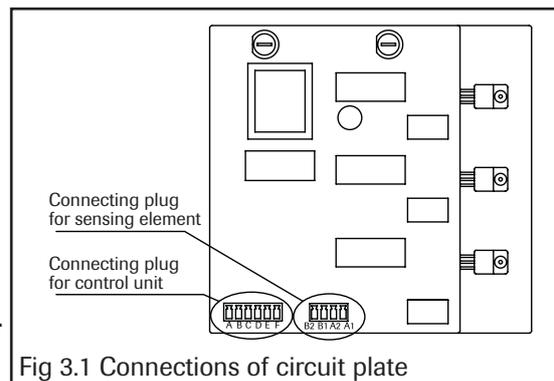


Fig 3.1 Connections of circuit plate

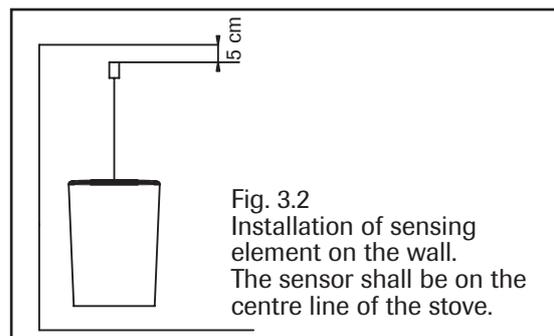


Fig. 3.2
Installation of sensing element on the wall.
The sensor shall be on the centre line of the stove.

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. 4A).
- 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 (Fig. 4B).
- Tighten the upper edge of the sauna stove with a locking screw (Fig. 4C).
- The stone basket is now locked in the jacket and on the mounting plate of the sauna stove.

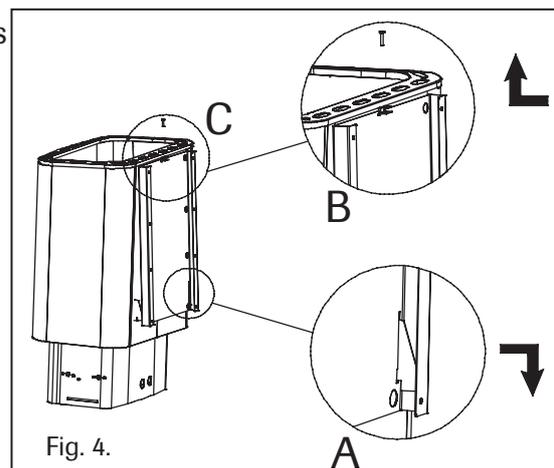
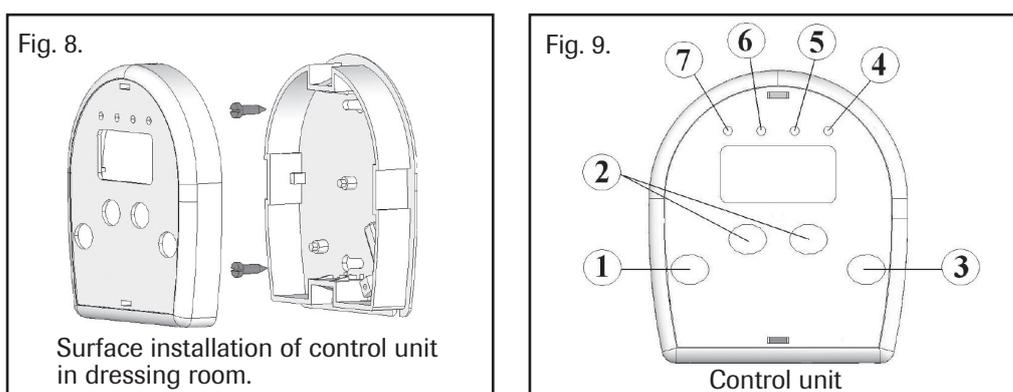
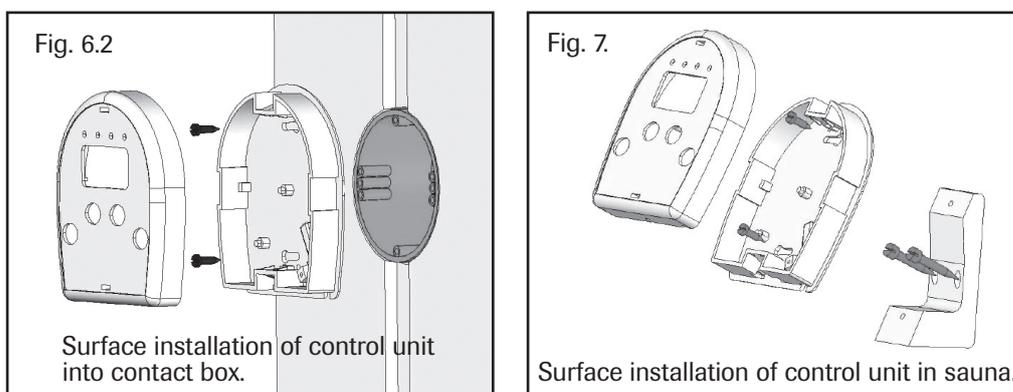
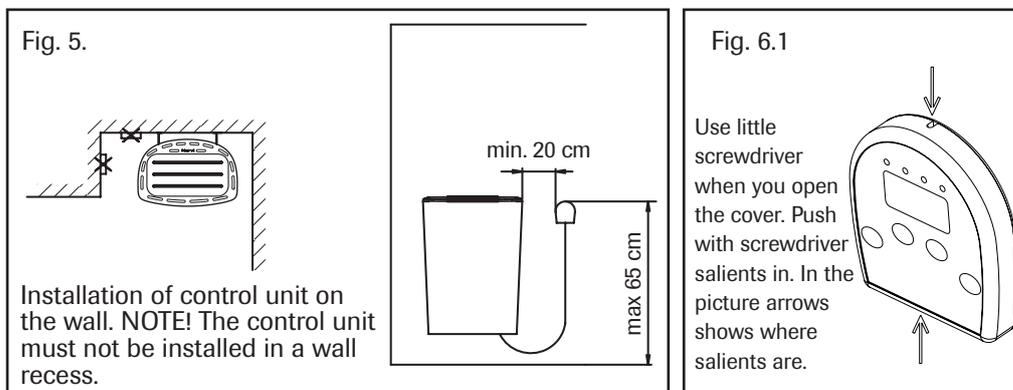


Fig. 4.

3.2 Installation of control unit

- The control unit can be installed either in the sauna or in the dressing room. In the sauna the control unit shall be installed at a height of at most 65 cm. Cf. Fig. 5.
- Install the stand for the control unit on the wall and the control unit on the stand. Fig. 5.
- The wiring of the control unit can be shortened. The wire may not be inserted in the connection box of the stove.
- Surface installation of control unit into contact box. Fig. 6.2.



4. CONTROL UNIT

4.1 Instructions for use of control unit

1. On/Off pushbutton

- When the display is off, pushing this button will switch on the control unit and the stove. The button shall be held down for more than 1 second.
- The control unit and the stove can be switched off by pressing the button again and holding it down (for more than 1 second).
- When the stove is switched on, the pre-selection time will be displayed (yellow LED is on).

The pre-selection time remains on the display for 5 seconds, and then the measured temperature is displayed (basic status).

- Other functions of the ON/OFF pushbutton (held down for less than 1 second)
First press, adjustment of pre-selection time. Yellow LED flashes.
Second press, adjustment of switching-on time. Yellow LED is on.
Third press, adjustment of target temperature. Green LED flashes.
Fourth press, display returns to measured temperature.

2. Adjusting times and temperatures

- Adjusted with +/- pushbuttons when the desired function is displayed.

3. Light in sauna room

- Light is switched on and off by pressing the pushbutton.

4.2 Signal lights

4. Green light = light on in sauna room
5. Green light = on when measured temperature is displayed.
Flashes when target temperature is displayed.
6. Yellow light = on when switching-on time is displayed.
Flashes when pre-selection time is displayed.
7. Red light = on until target temperature is reached for the first time.

4.3 Error messages

- ERR1= a break in the sensor circuit
- ERR2= a short-circuit in the sensor circuit
- ERR3= a break in the overheat protector's current circuit

NOTE! If an error message is displayed, switch off the sauna stove.

4.4 Technical data of control unit

- Temperature adjustment range 40°C-120°C
- Temperature display 20°C-120°C
- In increments of 1°C
- Pre-selection time max. 24 h
- In increments of 1/2 h
- Max. Power On time 4 h

5. TECHNICAL DATA

5.1 Upper board

- enclosure class IPX4
- the control unit can be installed in the sauna or in the dressing room

5.2 Lower board

- voltage 400 V 3N 50 Hz
- current 16 A
- stove wattage max. 9 kW
- sauna light max. 100 W
- enclosure class IPX4
- overheat protection 144°C
- Fuse 1 1A
- Fuse 2 1A

6. LOADING OF STONES

- When loading the stones, make sure they do not bend the resistors or obstruct sufficient circulation of air.
- Do not load the stones too tightly. Over-filling of the stone compartment will cause overheating of the resistors (= shorter service life) and slower heating up of the sauna.
- Suitable stones for the stove are 4-7 cm in diameter.
- The stones shall cover the heating resistors completely.

AN UNDER-FILLED STONE COMPARTMENT WILL CAUSE A FIRE HAZARD!
ALWAYS CHECK THE SAUNA BEFORE SWITCHING ON THE STOVE.

7. VENTILATION IN THE SAUNA

- The ventilation in the sauna should be as efficient as possible in order to ensure a sufficient oxygen level and freshness of air. We recommend that the fresh air intake is located near the stove (but not closer than 50 cm).
- The fresh air intake shall be equipped with an adjustable valve.
- The exhaust valve shall be at least twice the size of the fresh air intake. The exhaust valve can be installed on the opposite wall, at least 20 cm higher than the fresh air intake.

8. CONSTRUCTION OF SAUNA

- The sauna shall be well heat insulated, particularly the ceiling, where most of the steam rises. Due to the high level of humidity, the heat insulation should be covered with moisture-proof material, such as aluminium paper. Wood should always be used for cladding.

9. PROTECTIVE RAILING

- If required, a protective railing can be built round the stove. See Fig. 10. We recommend a wooden railing. The indicated safety distances to inflammable structures must be observed.

Improper installation will cause a fire hazard.

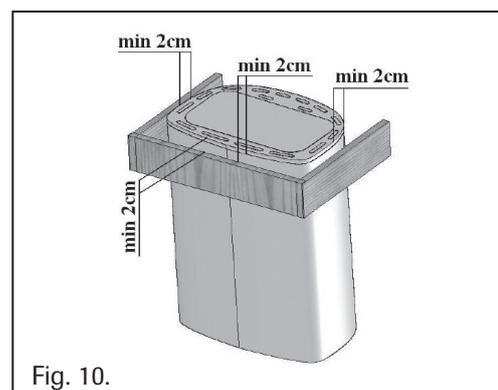


Fig. 10.

