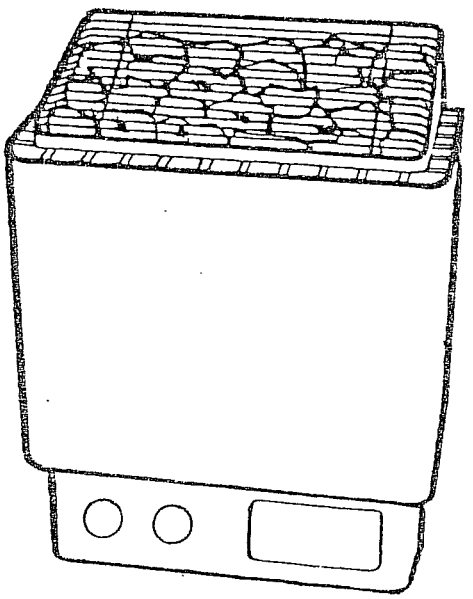
HELO

SAUNA HEATERS

SKSL 45 S
SKSL 60 S
SKSL 80 S



INSTALLATION INSTRUCTIONS

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MOUNTING OF THE SAUNA HEATER.

The sauna heater should be fastened to the wall using the screws that are delivered with the heater, see fig. 1. Be sure that the mounting screws are fastened not only through the soft wood lining of the sauna room, but also into a solid piece of strapping, 2 in. x 4 in. etc., to hold the weight of the unit. When fastening the heater to the wall please follow the requirements about the minimum distances to the wall, ceiling or the floor indicated on the metall plate on the heater.

- Strengnten the wall behind the heater with an additional board.
- The door of the sauna room should not include any locking or latching system , a failure which could cause entrapment inside the heated room.

T A B L E 1

Sauna heater model	Input	Sauna room size				
		Volume		Height	Floor area	
	kW	min. cb.ft.	max. cb.ft.	min. ft.	min. sq.ft.	max. sq.ft
SKPK 45 S	4,5	100	210	6 1/4	16	30
SKPK 60 S	6,0	175	310	6 1/4	28	40
SKPK 80 S	8,0	250	425	6 1/4	40	65

Supply connections Copper wire size:			
208V		240V	
1-ph	3-ph	1-ph	3-ph
2xAWG10+Gr	3xAWG14+Gr	2xAWG12+Gr	3xAWG14+Gr
2xAWG 8+Gr	3xAWG12+Gr	2xAWG10+Gr	3xAWG12+Gr
2xAWG 8+Gr	3xAWG12+Gr	2xAWG 8+Gr	3xAWG12+gr

ELECTRICAL HOOK-UP

The electrical installation must be made by a licensed electrician in accordance with local regulations. When choosing wires , please follow wiring diagram in this booklet. Use copper wires , only suitable for minimum 194°F to the heater.

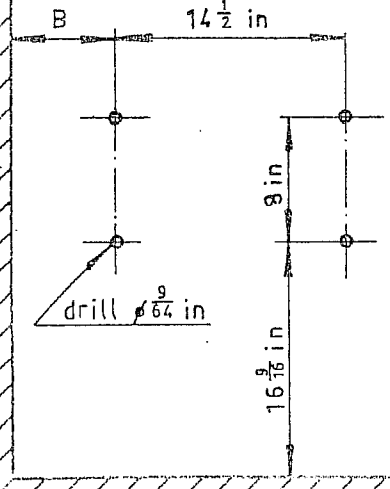
THE HEATER MUST BE GROUNDED. See wiring diagram fig. 2.

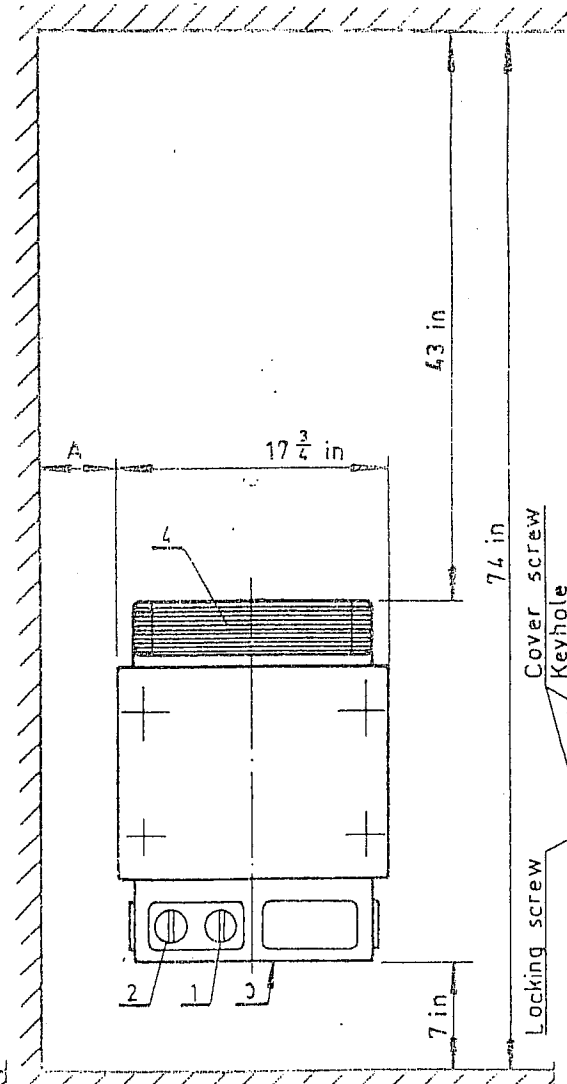
Fig.1.

Drilling advice for fastening screws (3,5 mm drill)

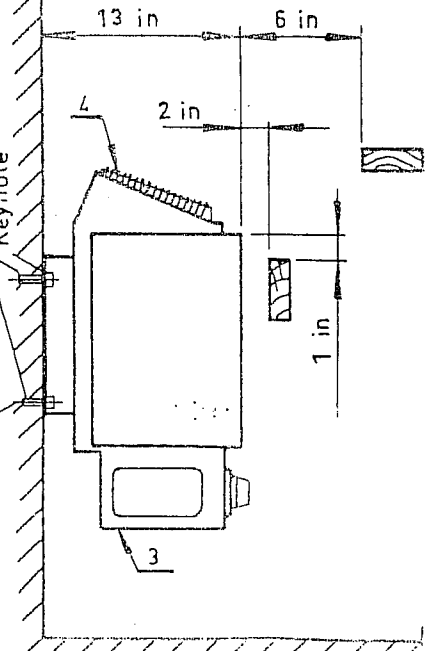
MIN. DISTANCE TO COMBUSTIBLE MATERIAL

Type	min. A	min. B
SKSL 80	5 in	5 $\frac{1}{16}$ in
SKSL 60	4 in	4 $\frac{1}{16}$ in
SKSL 45	3 in	3 $\frac{1}{16}$ in





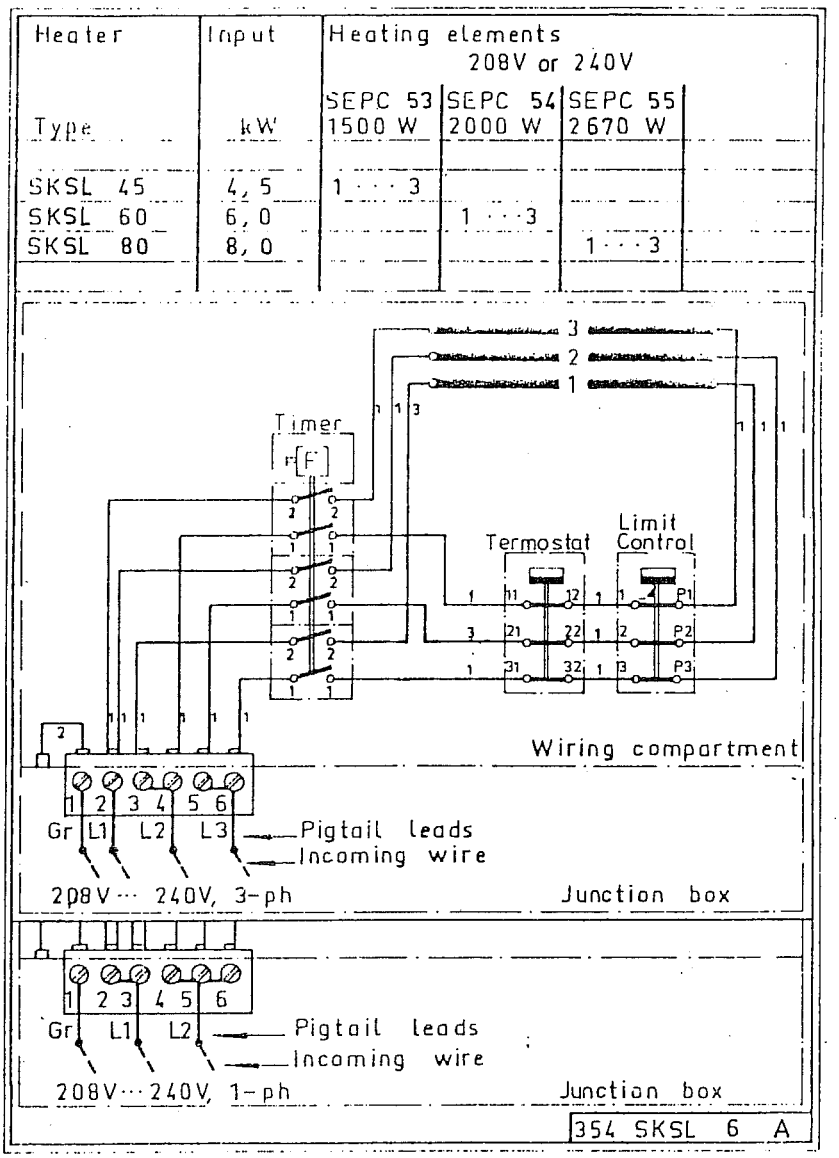
Attn.
The upper screws must be fastened s that there will be 3 mm space between the cover and the wall. Then put the heater on the screws at the wall and fasten the lower screws.



1. 30 minute timer 2. Thermostat 3. Limit control, reset button 4. Guard

Fig. 2

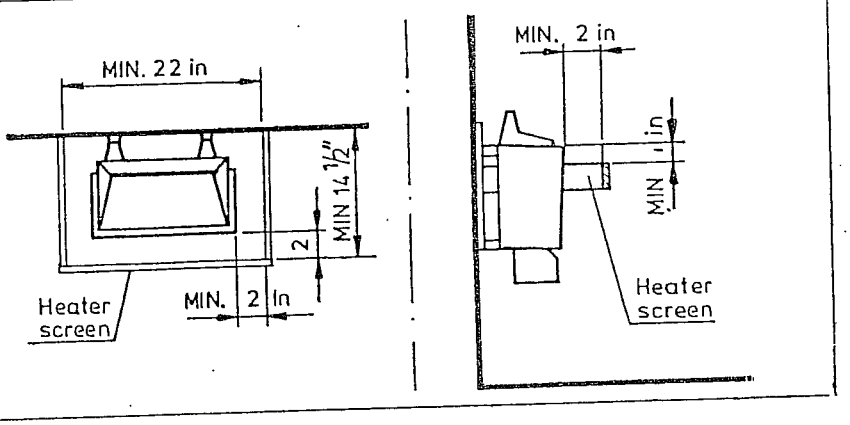
Heater Type	Input kW	Heating elements 208V or 240V SEPC 53 1500 W	SEPC 54 2000 W	SEPC 55 2670 W
SKSL 45	4,5	1 ··· 3		
SKSL 60	6,0		1 ··· 3	
SKSL 80	8,0			1 ··· 3



HEATER SCREEN (GUARD RAIL, see fig. 3)

Regardless of which heater you choose, there should always be a protective guard rail to prevent the sauna bather from accidentally touching the hot metal of the sauna stove. Its height should be equal to that of the stones of the heater and at least 2" away from the heater casing.

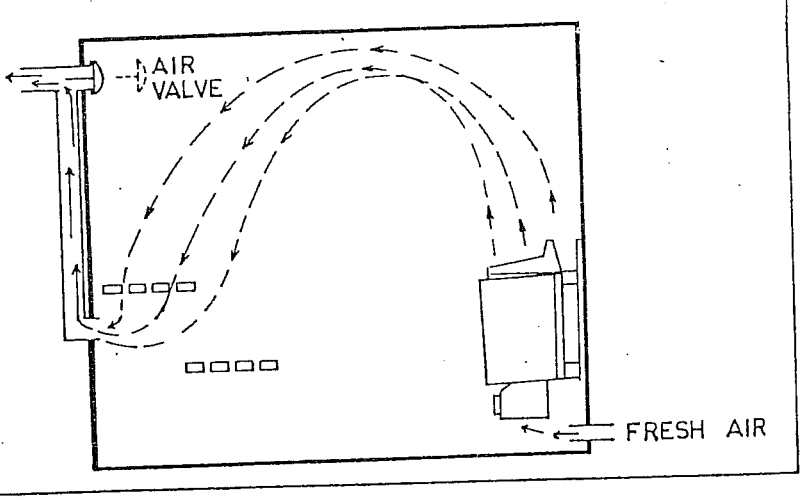
Fig. 3



THE VENTILATION OF THE SAUNA

In a private sauna the air should be changed about 6 times an hour. This can be acchieved by a vent under the heater direct from an adjacent area. The diameter of the vent should be about 2 1/2 - 3" (see fig. 4).

Fig. 4

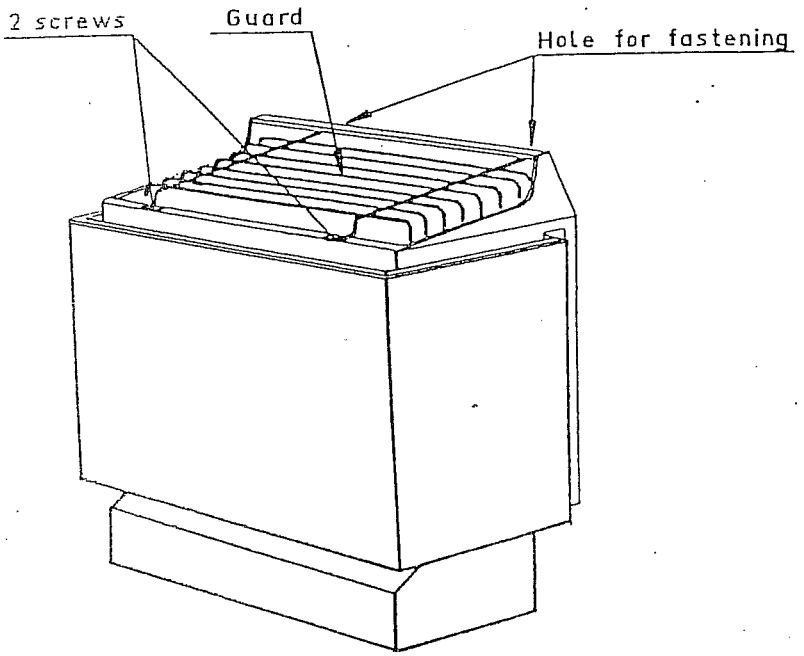


PLACING OF ROCKS

After the installation and hook-up of the heater, place the rocks in the rock container (upper part of the heater). The rocks must fully cover all heating elements. Hase down rocks before using these in the heater.

The rocks included with the heater are of special periodite type. When the rocks are in proper place fasten the guard with two screws (see fig. 5).

Fig. 5



LIMIT CONTROL

There is a limit control inside the heater, which cuts offelectricity if the temperature in the sauna room gets too high. If the heater kicks out, push reset button in the bottom of the heater (see fig. 1)

DIRECTIONS FOR USE

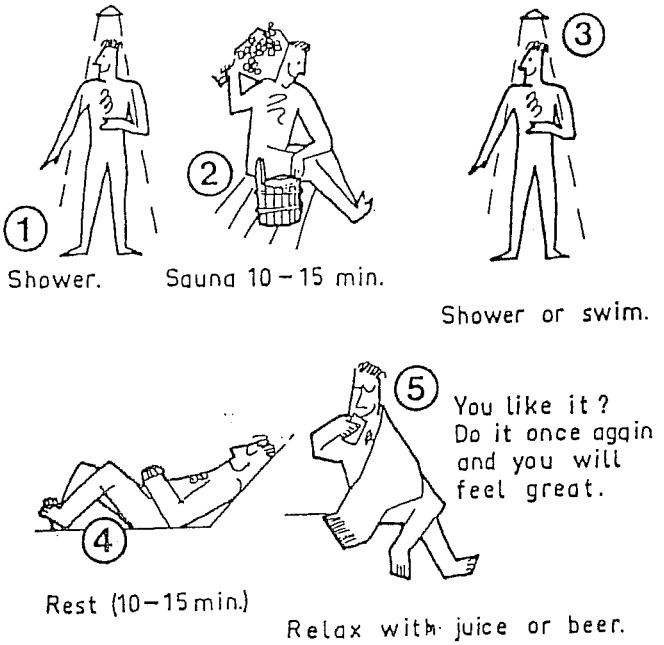
Pre-heat the sauna to desired temperature before use. To start the heater, turn the knob of the timer in the control panel CLOCKWISE as far as it goes. The temperature can be regulated by turning the thermostat knob clockwise for a higher temperature; and counter for a lower temperature (allow several minutes for temp. change). If more humidity in the sauna room is desired, splash some water on the rocks. After using, the sauna heater can be turned off by turning knob to "OFF" pos.

WHAT YOU SHOULD KNOW ABOUT SAUNA BATHS

Sauna bathing is a centuries old way of life in Finland and has become appreciated and popular all over the civilized world in the past decade.

The principal of sauna bathing is to recline in a wood paneled, well-insulated room, on wooden slatted benches, surrounded by comforting, soothing, heated air, generally by a temperature in excess of 170^{o}F, with humidity of around 25% or less. The dry, comfortable air allows you to completly relax while you perspire freely. This cleans the pores and a sauna followed by a cold shower leaves your skin refreshingly clean.

INSTRUCTIONS FOR PROPER USE OF SAUNA



IMPORTANT PRECAUTIONS

- No specific health claims are intended or implied. If you have any questions about your ability to undertake sauna bathing - IT IS ADVISABLE TO CONSULT YOUR PHYSICIAN.
- On the outside of the sauna-room door there must be a clearly visible warning reading as follows:"DO NOT EXCEED 30 MINUTES IN SAUNA - EXCESSIVE EXPOSURE CAN BE HARMFUL TO HEALTH. PERSONS WITH POOR HEALTH SHOULD CONSULT THEIR PHYSICIAN BEFORE USING SAUNA". (Delivered with the heater).
- On the wall inside the sauna-room above the heater there must be a clearly visible warning metal nameplate YKWA 12.(Delivered with the heater).
- Do not paint any of the wooden surfaces of the interior of the saunas. Painted surfaces become too hot to touch in a sauna. No protective finish of the interior wood is required.

SAUNA ROOM

Complete factory-made ready to build sauna prefabs are available. The sauna heaters are also sold separately for use in a sauna room that was previously built.

HOW TO BUILD A SAUNA

To assist you in building your own sauna, the following paragraphs will give you all the necessary information you will need to construct a very satisfactory, professional type sauna to suite any available area.

In building your sauna room, remember that you are basically building an insulated box-like room, containing benches for your comfort, a heater, a supply of igneous rocks to provide heat convection, a thermostat to control temperature and a thermometer.

FRAMING FOR AN INTERIOR SAUNE ROOM

If you are lining an existing room, 2" x 3" or even 2" x 2" studs are satisfactory. If wiring is to be concealed, be sure to notch framing before installing insulation. If ceiling is over 7' high, drop same to 7' or less.

INSULATION

Staple full-thick 3 1/2" aluminium foil-faced or draft paper faced fiberglass batt insulation to the inside of studs, with the foil side facing in. Insulation, 3 1/2" thick, is satisfactory for lining an existing room. Use at least 6" of fiberglass insulation in the ceiling. Normally, it's unnecessary to insulate the floor unless located outdoors or otherwise exposed to the weather. Homosote can be used in ceiling insulation which is available in 2". 2 1/2", 3" and 4" thickness and is easier to install for exterior ceiling than fiberglass.

INTERIOR WALLS

Walls and ceiling in the sauna room may be lined 1" x 4", 1" x 6" or 1" x 8" tongue and groove softwood planks. These planks are usually supplied in 3/4" thickness after they are sanded and finished. Woods most commonly used are HEMLOCK, SPRUCE, PINE and REDWOOD (either all-clear heart vertical grain or guage "A") or Non-Aromatic CEDAR. Caution should be taken in choosing Redwood boards in "A" grade to avoid any white sap sections on panels where there is body contact, as these sections retain heat and could burn.

For horizontal planking, begin-at the bottom, with tongue side up. To conceal nailholes, nail through the tongue only, using finishing nails or commercial type stapling machine. Since metal becomes too hot to touch in a sauna room, all exposed nailheads should be countersunk at least 1/16" and the hole covered with plastic wood or other suitable material. Points may be blunted with a hammer to prevent splitting of the wood.

FLOORING AND TRIM

In most instances, existing floors (wood, tile or concrete) are satisfactory for sauna rooms. Dutchboard (latticework grating of redwood 1" x 2" strips) should be used in open areas in front of benches. Dutchboard should be made in removable sections to facilitate cleaning the sauna room floor.

LIGHTING FIXTURE

The sauna don't need to be brightly lighted. A small lighting fixture will do. 60 W for a small sauna, 100 W for a large one. The fixture should be water-proof, such as standard shower fixture, and should be pre-wired with asbestos insulated wire. A rectangular recessed fixture with brushed aluminium or stainless steel trim and a glazed lens is ideal. For large rooms, install in center of the ceiling. The light switch should be outside the door.

IF YOU HAVE DIFFICULTY IN OPERATING YOUR HOME SAUNA, PLEASE CHECK THE FOLLOWING:

- Is the electricity turned on? Is the wiring properly connected? Be sure to press the reset button for the overload cut-off switch, located at the underside of the heater (see fig. 1 point 3 page 2).
- Are you using the correct size? Check your fuse box.
- Is the heating element getting red hot? CAUTION: DO NOT TOUCH THE ELEMENT AS IT CAN CAUSE A PAINFUL BURN.
- Is the timer working properly? This can be checked against any timepiece.

IF YOU HAVE CHECKED ALL OF THE ABOVE AND STILL CANNOT FIND THE DIFFICULTY , PLEASE HAVE A LICENSED ELECTRICIAN TO CHECK THE FOLLOWING:

- Is the heater hooked up according to the wiring diagram? Check all wiring.
- Is the thermostat positioned properly?
- Are the wires in the junction box properly connected?
- Has proper size copper wires been used to connect to power source?

Wiring diagram for SKSL 60 B, -80 B + MB 1T.
Power input 208 – 240V, AC, 1 – ph

Heater type	Input kW	Wire size to – control panel 208 V	control panel 240 V	heater 208 V	heater 240 V
SKSL 60 B	6,0	2×AWG 8+Gr	2×AWG 10+Gr	2×AWG 8+Gr	2×AWG 10+Gr
SKSL 80 B	8,0		2×AWG 8+Gr		2×AWG 8+Gr

CAUTION! USE COPPER WIRE SUITABLE FOR AT LEAST 90°C TO THE HEATER.

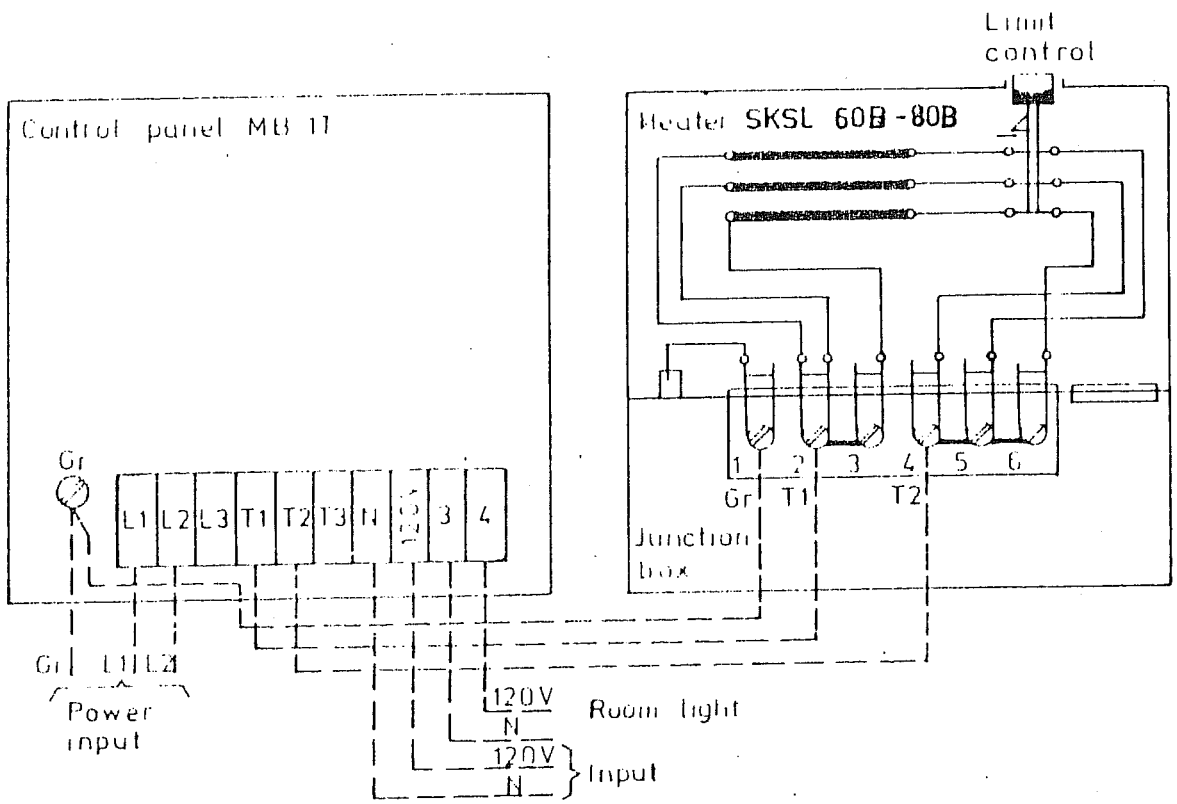


Fig 5b

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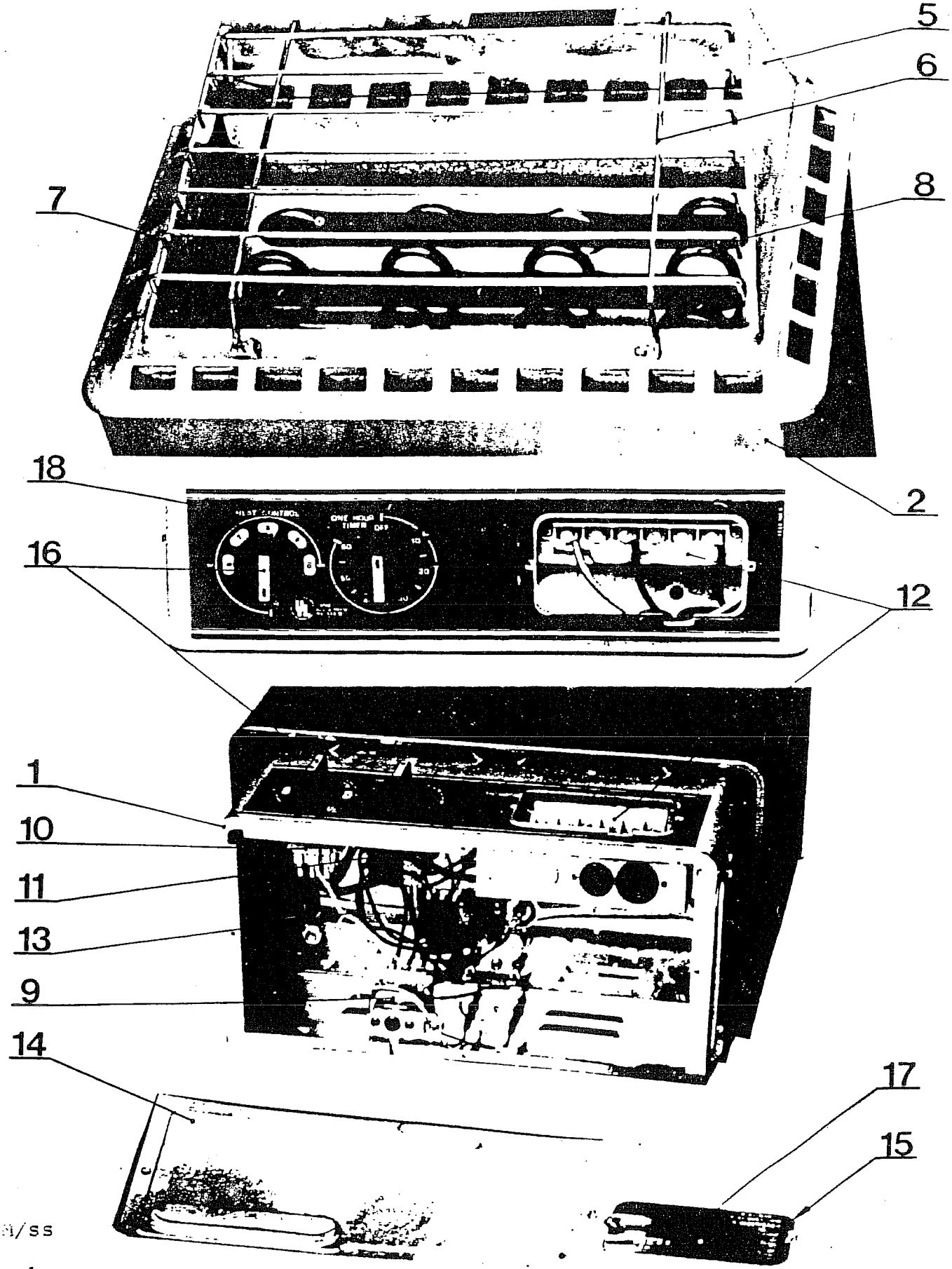

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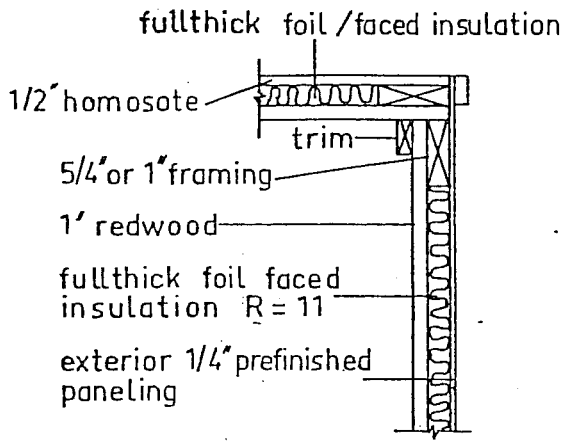
CONSTRUCTION DETAILS

wall & ceiling section



BENCH LAYOUT

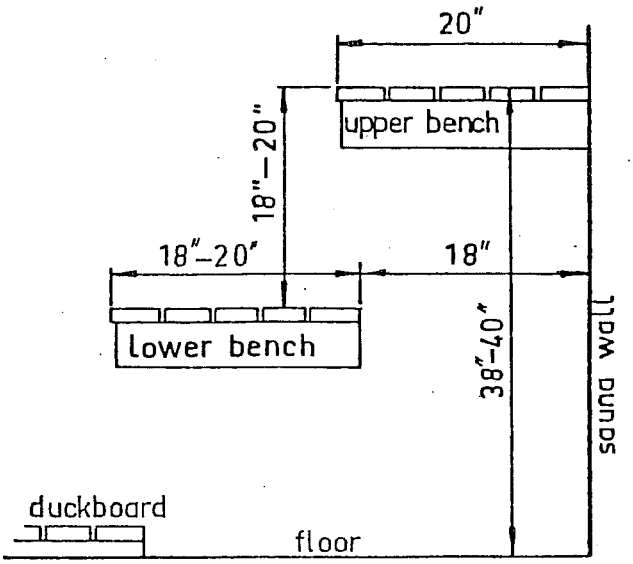
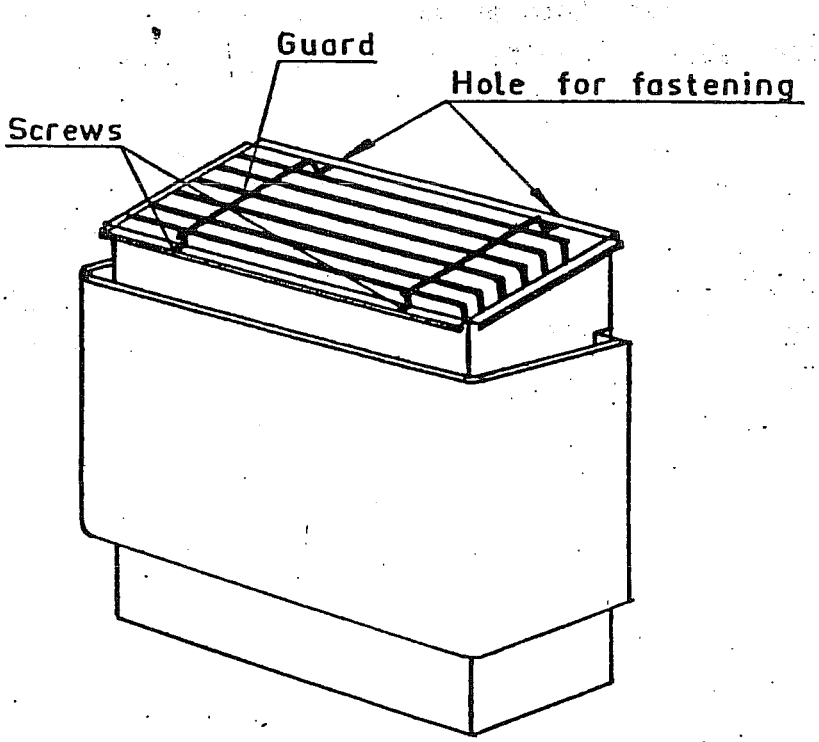


Fig. 7



LIST OF SPARE PARTS

HEATER TYPE SKSL 45S - 60S - 80S

Nr.	Name	Type	4,5 kW	6 kW	8 kW	Attention
1	Inner enclosure	SK - ZR 21	1	1	1	
2	Outer cover	SK - ZW 22	1	1	1	
3	Heat reflector	SK - ZS 29	1	1	1	
4	- " -	SK - ZS 30	1	1	1	
5	Rock guard	SK - ZC 2	1	1	1	Aluminium cast
5	- " -	SK - ZC 1	1	1	1	Stainless steel, 1 mm thick
6	Element guard	SK - ZG 5	1	1	1	for al. cast guard
6	- " -	SK - ZG 6	1	1	1	for steel guard
7	Grate	SK - ZRKA 16	1	1	1	
8	Heating element	SEPC 5363	3	-	-	208 V or 240 V
	- " -	SEPC 5464	-	3	-	208 V or 240 V
	- " -	SEPC 5565	-	-	3	208 V or 240 V
9	Limit control	ORHE 7 - 2	1	1	1	
10	Thermostat	OLHE 7 - 3	1	1	1	Usa OLHE 7-4 per foli
11	Timer	OYKC 5	1	1	1	
12	Terminal block	NLWB 1 - 3	1	1	1	
13	Internal wiring	A 40870	1	1	1	
14	Bottom cover	SK - ZKK 32	1	1	1	
15	Junction box cover	SK - ZLK 15	1	1	1	
16	Knob	YWWA 3 - 1	2	2	2	For thermostat and timer
17	Nameplate	YKAA 201	1	1	1	
18	- " -	YKAA 198	1	1	1	

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List of spare parts for heater types SKSL 45S - 60S - 80S

Number	Name	Type	4.5 KW	6.0 KW	8.0KW	Notes
1	Inner enclosure	SK-ZR 21	1	1	1	
2	Outer cover	SK-ZW 22	1	1	1	
3	Heat reflector	SK-ZS 29	1	1	1	
4	Heat reflector	SK-ZS 30	1	1	1	
5	Rock guard	SK-ZC 2	1	1	1	Aluminum cast
5	Rock guard	SK-ZC1	1	1	1	Stainless steel, 1mm thick
6	Element guard	SK-ZG 5	1	1	1	for aluminum guard
6	Element guard	SK-ZG 6	1	1	1	for steel guard
7	Grate	SK-ZRKA 16	1	1	1	
8	Heating element	SEPC 63	3	-	-	208 or 240v
8	Heating element	SEPC 64	-	3	-	208 or 240v
8	Heating element	SEPC 65	-	-	3	208 or 240v
9	Limit control	ORHE 74	1	1	1	#2580
10	Thermostat	OLHE 74	1	1	1	#2550
11	Timer	OYKC 5	1	1	1	#2560
12	Terminal block	NLWB 1-3	1	1	1	
13	Internal wiring	A 40870	1	1	1	
14	Bottom cover	SK-ZKK 32	1	1	1	
15	Junction box cover	SK-ZLK 15	1	1	1	
16	Knob	YWWA 3-1	2	2	2	Tstat & timer
17	Nameplate	YKAA 201	1	1	1	
18	Nameplate	YKAA 198	1	1	1	