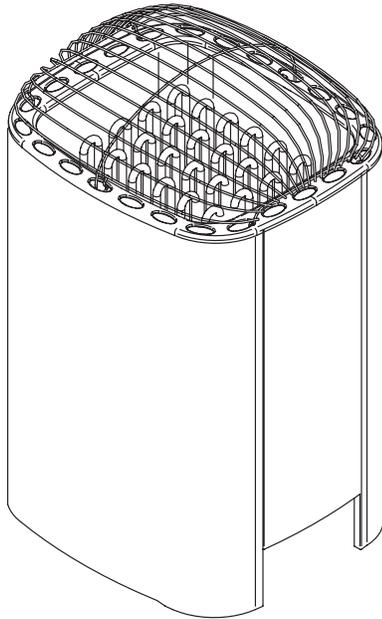




HOTASS SAUNAS

ClubHeat Series Sauna Heaters Installation and Operation Manual



MODELS

C1000/K10G-U1
C1250/K12.5G-U1
C1500/K15G-U1
C1000-3/K10G-U3
C1250-3/K12.5G-U3
C1500-3/K15G-U3

CONTROLS

HeatPad10
HeatPad15



Intertek
3159549

ETL LISTED
CONFORMS
TO UL STD 875
CERTIFIED TO
CAN/CSA STD
E60335-2-53-05

IMPORTANT! This manual must be left with owner, manager, or operator of sauna after it is used by electrician!

PURPOSE OF THE ELECTRIC HEATER:

The ClubHeat / KG-heaters are designed for the heating of large saunas to bathing temperature. It is forbidden to use the heater for any other purposes. Please read the user's instructions carefully before using the heater.

NOTE!

These instructions for installation and use are intended for the owner or the person in charge of the sauna, as well as for the electrician in charge of the electrical installation of the heater.

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WARNINGS!

Do not smoke, use alcohol, or exercise in the sauna!

Do not exceed 30-minutes in the sauna at one time, as excessive exposure can be harmful to health. The sauna should not be used as an endurance test!

Persons with poor health should consult their physicians before using the sauna!

Avoid fire, do not place any combustible material over the sauna heater (towels, bathing suits, wooden bucket or dipper)!

Use only clean water on the stones - do not use pool or spa water, as chlorine gas can be produced and the heating elements can be damaged!

Keep away from the heater when it is hot. The stones and outer surface of the heater may burn your skin.

Do not pour too much water on the stones. The evaporating water is boiling hot.

Do not let young, handicapped or ill people bathe in the sauna on their own.

Consult your doctor about health-related limitations of bathing.

Parents should keep their children away from the hot heater.

Consult your child welfare clinic about taking little babies to the sauna.

- Age?
- Temperature of the sauna?
- Time spent in the warm sauna?

Be very careful when moving in the sauna, as the platform and floors may be slippery.

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperatures of 98.6°F (37°C). The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting.

The effects of hyperthermia include:

- A) Failure to perceive heat**
- B) Failure to recognize the need to exit the room**
- C) Unawareness of impending hazard**
- D) Fetal damage in pregnant women**
- E) Physical inability to exit the room**
- F) Unconsciousness**

Warning - the use of alcohol, drugs or medication is capable of greatly increasing the risk of fatal hyperthermia!

INSTRUCTIONS FOR USE

PILING OF THE SAUNA STONES

The sauna stones for an electric heater should be 2 - 4" in diameter. The heater stones should be solid blocks of stone specially intended for use in the heater. Neither light, porous ceramic "stones" of the same size nor soft potstones should be used in the heater, because they may cause the resistance temperature to rise too high as a result of which the resistance may be broken.

Stone dust should be washed off before piling the stones. The stones should be piled into the stone compartment over the grating, between the heating elements (resistances) so that the stones support each other. The weight of the stones should not lie on the heating elements.

The stones should not be piled too tightly, so that air can flow through the heater. See figure 1. The stones should be fitted loosely, and not wedged between the heating elements, very small stones should not be put into the heater at all.

The stones should completely cover the heating elements. However, they should not form a high pile on the elements.

The stones disintegrate with use. Therefore, they should be rearranged at least once a year or even more often if the sauna is in frequent use. At the same time, any pieces of stone should be removed from the bottom of the heater, and disintegrated stones should be replaced with new ones.

The guarantee does not cover any faults caused by the use of stones not recommended by the manufacturer. Neither does the guarantee cover any faults caused by disintegrated or too small stones blocking the heater ventilation.

No such objects or devices should be placed inside the heater stone space or near the heater that could change the amount or direction of the air flowing through the heater, thus causing the resistance temperature to rise too high, which may set the wall surfaces on fire!

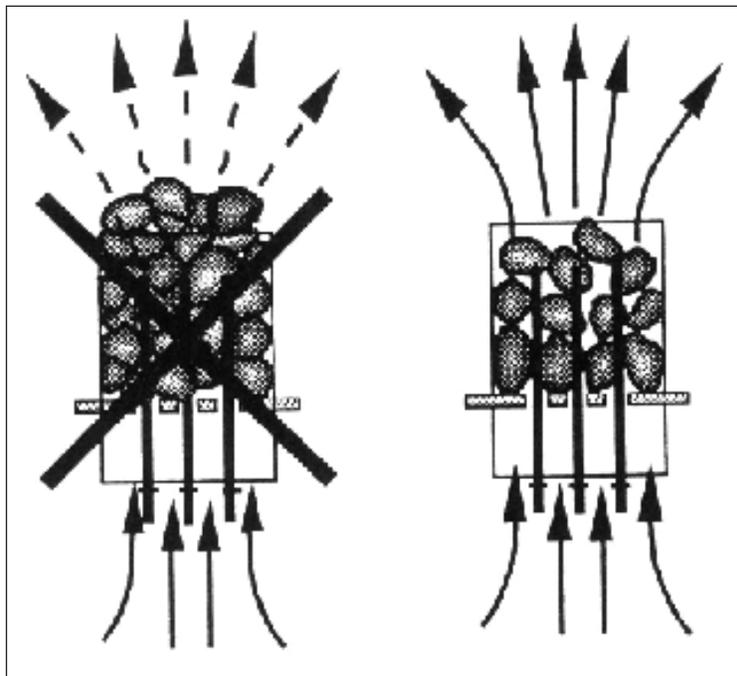


Figure 1. Piling of the Sauna Stones

HEATING OF THE SAUNA

Before switching the heater on always check that there isn't anything on top of the heater or inside the given safety distance. See item 1.6 "Warnings".

When the heater is switched on for the first time, both the heater and the stones emit smell. To remove the smell, the sauna room needs to be efficiently ventilated.

The purpose of the heater is to raise the temperature of the sauna room and the sauna stones to the required bathing temperature. If the heater output is suitable for the sauna room, it will take about an hour for a properly insulated sauna to reach that temperature. See item 2. "Sauna Room Construction - General Information". A suitable temperature for the sauna room is about 149 - 176°F (65 - 80°C).

The sauna stones normally reach the required bathing temperature at the same time as the sauna room. If the heater capacity is too big, the air in the sauna will heat very quickly, whereas the temperature of the stones may remain insufficient; consequently, the water thrown on the stones will run through. On the other hand, if the heater capacity is too low for the sauna room, the room will heat slowly and, by throwing water on the stones, and bather may try to raise the temperature of the sauna. However, the water will only cool down the stones quickly, and after a while the sauna will not be warm enough and the heater will not be able to provide enough heat.

In order to make bathing enjoyable, the heater capacity should be carefully chosen to suit the size of the sauna room.

CONTROL UNIT OF HEATER

The ClubHeat / KG model heaters require a separate control unit to operate the heater. The control unit should be located outside the sauna room in a dry place, at a height of approximately 5'. The temperature sensor, by means of which the set temperature is maintained in the sauna room, should be connected to the control unit. The temperature sensor and overheating limiter are located in the sensor box installed above the heater. The sensor box should be installed in accordance with the installation instructions of the control unit model in question.

The ClubHeat / KG model heaters are controlled with the HeatPad control unit.

HeatPad Precision Sauna Environment Control

Control Panel:

- Temperature adjustment range 104 - 194°F (40 - 90°C).
- Pre-setting time adjustment range 0 - 24 h.
- Lighting control, max. power 100W, 120V, 1Ph.
- Fan control, max. power 100W, 120V, 1Ph.
- Dimensions: 3.4" x 1" x 4.4"
- 50' Control cable length.

Power Unit:

- Supply voltage
- 240V 1Ph or 208V 3Ph
- Dimensions: 14.3" x 2.9" x 10.5"

Sensor:

- Temperature Sensor NTC thermistor 22kΩ/T=77°F (25°C)
- Resettable overheat protector
- Dimensions: 2.0" x 2.9" x 1.1"
- 50' sensor cable length

THROWING WATER ON HEATED STONES

The air in the sauna room becomes dry when warmed up. Therefore, it is necessary to pour water on the heated stones to reach a suitable level of humidity in the sauna.

The humidity of the air in the sauna room is controlled by the amount of water poured on the stones. A correct level of humidity makes the bather's skin sweat and makes breathing easy. By throwing water on the stones with a small ladle, the bather should feel the effect of air humidity on his skin. Both too high a temperature and air humidity will give an unpleasant feeling.

Staying in the hot sauna for long periods of time makes the body temperature rise, which may be dangerous.

The maximum volume of the ladle is 7 ounces. The amount of water poured on the stones at a time should not exceed 7 ounces, because if an excessive amount of water is poured on the stones, only part of it will evaporate and the rest may splash as boiling hot water on the bathers.

Never pour water on the stones when there are people near the heater, because hot steam may burn their skin.

SAUNA WATER

The water to be poured on the heated stones should meet the requirements of clean household water. the factors essentially affecting the quality of water include the following:

- Humuos content (color, taste, precipitates); recommended content less than 12 mg/l.
- Iron content (color, smell, taste, precipitates); recommended content less than 0.2 mg/l.

- Hardness - the most important substances are manganese (Mn) and calcium (Ca);
- Recommended content of manganese 0.05 mg/l, calcium less than 100 mg/l.

Calcareous water leaves a white, sticky layer on the stones and metal surfaces of the heater. Calcification of the stones deteriorates the heating properties.

Ferrous water leaves a rusty layer on the surface of the heater and elements, and causes corrosion.

The use of humous, chlorinated water and seawater is forbidden.

Only special aromas designed for sauna water may be used. Follow the instructions given on the package.

TEMPERATURE AND HUMIDITY OF THE SAUNA ROOM

Both thermometers and hygrometers suitable for use in a sauna are available. As the effect of steam on people varies, it is impossible to give an exact, universally applicable bathing temperature or percentage of moisture. The bather's own comfort is the best guide.

The sauna room should be equipped with proper ventilation to guarantee that the air is rich in oxygen and easy to breathe.

Bathing in a sauna is considered a refreshing experience and good for the health. Bathing cleans and warms your body, relaxes the muscles, soothes and alleviates oppression. As a quiet place, the sauna offers the opportunity to meditate.

INSTRUCTIONS FOR BATHING

- Begin by washing yourself.
- Stay in the sauna for as long as you feel comfortable.
- According to established sauna conventions, you must not disturb other bathers by speaking in a loud voice.
- Do not force other bathers from the sauna by pouring excessive amounts of water on the stones.
- Forget all your troubles and relax.
- Cool your skin down as necessary.
- If you are in good health, you can have a swim if a swimming place or pool is available.
- Wash yourself properly after bathing. Have a drink of fresh water or a soft drink to bring your fluid balance back to normal.
- Rest for a while and let your pulse go back to normal before dressing.

WARNINGS

- **Do not smoke, use alcohol, or exercise in the sauna!**
- **Sea air and a humid climate may corrode the metal surfaces of the heater.**
- **Keep away from the heater when it is hot. The stones and outer surface of the heater may burn your skin.**
- **Do not pour too much water on the stones. The evaporating water is boiling hot.**
- **Do not let young, handicapped or ill people bathe in the sauna on their own.**
- **Consult your doctor about health-related limitations of bathing.**
- **Parents should keep children away from the hot heater.**
- **Consult your child welfare clinic about taking little babies to the sauna.**
 - Age?
 - Temperature of the sauna?
 - Time spent in the warm sauna?

- **Be very careful when moving in the sauna, as the platform and floors may be slippery.**
- **Do not exceed 30-minutes in the sauna at one time, as excessive exposure can be harmful to health. The sauna should not be used as an endurance test!**
- **Persons with poor health should consult their physicians before using the sauna!**
- **Avoid fire, do not place any combustible material over the sauna Heater (towels, bathing suits, wooden bucket or dipper)!**
- **Use only clean tap water on the stones - do not use pool or spa water, as chlorine gas can be produced and the heating elements can be damaged!**
- **Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F. The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting.**

The effects of hyperthermia include:

- A. Failure to perceive heat
- B. Failure to recognize the need to exit the room
- C. Unawareness of impending hazard
- D. Fetal damage in pregnant women
- E. Physical inability to exit the room
- F. Unconsciousness

WARNING - the use of alcohol, drugs, or medication is capable of greatly increasing the risk of fatal hyperthermia.

TROUBLESHOOTING

If the heater does not heat, check the following points:

- The current from the control unit to the heater has been switched on.
- The desired temperature programmed in the control panel is higher than the temperature of the sauna.
- The breaker is switched on. Also, breaker should be correct size.

ROOM CONSTRUCTION - GENERAL INFORMATION

A. FRAMING

2" x 4" any suitable wood material, 16" o.c.

B. CEILING LIGHT

No higher than 7'0"

C. INSULATION

R11 Fiberglass with foil back in walls and ceiling, foil facing into room.

D. DRYWALL

See local codes. Is not required in most residences. See local codes commercial. If drywall is used, apply 1" x 2" nailers so that wall and ceiling boards can be attached to solid wood.

E. PANELING

Use kiln-dried, clear, T&G softwood such as California Redwood, Western Red Cedar, Alaska Yellow Cedar, pine, spruce or other suitable wood material (with moisture content not exceeding 11%).

F. BENCHES

Use matching wood of vertical grain. Fasten from bottom to prevent burning of bathers.

G. HEATER FENCE

Is necessary for safety and should be constructed of 1" x 4" or 2" x 4" softwood to match sauna interior. See figures 3 - 6 clearances from sauna heater. Fence should attach to wall and should not be placed higher than top of heater below rock line.

H. DOOR

Must open out and should not have a lock.

I. FLOORING

Concrete, ceramic tile, or heavyduty vinyl.

J. VENTILATION

Should be provided by lower vent close to heater, 4" from floor, and upper vent on opposite wall (if possible) 6" from ceiling or as low as 24" from floor. Vents should be adjustable and should allow air to change 5 times per hour. Sauna shall be provided with intended ventilations as required per the local code authorities.

K. LIGHT

Should be wall-mounted, vapor proof type, with rough-in box mounted flush with inside paneling. It should mount 6' 6" from the floor, not directly over sauna heater, and not over upper

benches; light bulb should not exceed 75 watts.

L. ACCESSORIES

Bucket, dipper and thermometer are essential. Thermometer should be placed over the Sauna heater, 6" from ceiling, for correct temperature reading. Other accessories such as hygrometer, sand timer, brushes, etc. are available.

M. MAINTENANCE INSTRUCTIONS

Are included at the end of this manual.

N. WARNING SIGNS

Are furnished with Sauna heater. The metal "CAUTION" sign should be fastened to wall, close to heater, in a visible place. The metal "Warning" sign should be fastened outside, to the Sauna room door.

WARNINGS!

***Do not smoke, use alcohol, or exercise in the sauna!**

*** Do not exceed 30-minutes in the sauna at one time, as excessive exposure can be harmful to health. The sauna should not be used as an endurance test!**

*** Persons with poor health should consult their physicians before using the sauna!**

*** Avoid fire, do not place any combustible material over the sauna heater (towels, bathing suits, wooden bucket or dipper)!**

*** Use only clean water on the stones - do not use pool or spa water, as chlorine gas can be produced and the heating elements can be damaged!**

*** Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperatures of 98.6°F (37°C). The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting.**

***The effects of hyperthermia include:**

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D) Fetal damage in pregnant women

E) Physical inability to exit the room

F) Unconsciousness

*** Warning - the use of alcohol, drugs or medication is capable of greatly increasing the risk of fatal hyperthermia!**

INSTRUCTIONS FOR INSTALLATION

PRIOR TO INSTALLATION

Prior to installing the heater, study the instructions for installation, as well as checking the following points:

- Is the output and type of the heater suitable for the sauna room?

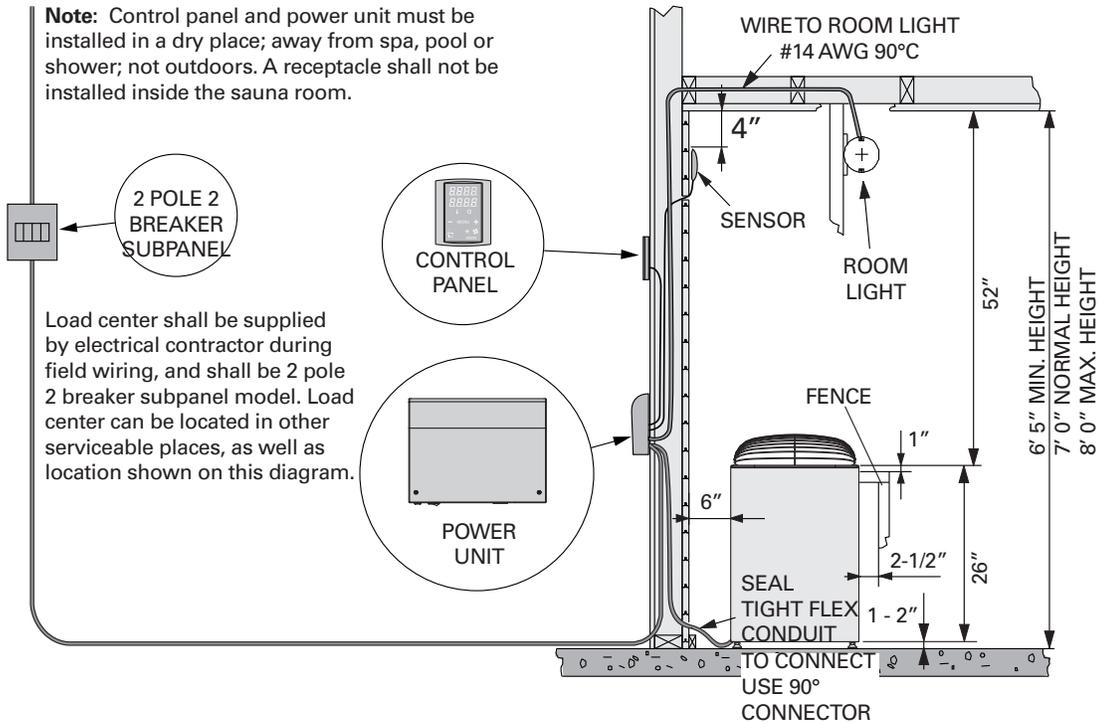
The cubic volumes given in table 1 should be followed.

- Are there a sufficient number of high quality sauna stones?
- Is the supply voltage suitable for the heater?
- The location of the heater fulfills the minimum requirements concerning safety distances given in figures 2 - 6 and table 1.

It is absolutely necessary to ensure that the installation is carried out according to these values. Neglecting them can cause a risk of fire.

- Only one electrical heater may be installed in the sauna room. Multiple heaters can be installed and used in the sauna room only if they share the same control unit.
- The heater should be installed so that the warning texts on the cover of the junction box can also be read without difficulty after the installation.
- ClubHeat / KG heaters have not been approved to be installed in a recess in the wall or floor.

TYPICAL SAUNA HEATER / CONTROL INSTALLATION



MODEL	CONNECTOR
C1000/K10G-U1	3/4"
C1250/K12.5G-U1	3/4"
C1500/K15G-U1	1"
C1000-3/K10G-U3	3/4"
C1250-3/K12.5G-U3	1"
C1500/K15G-U3	1"

HEATER MIN. CLEARANCE FROM WALL AND FENCE

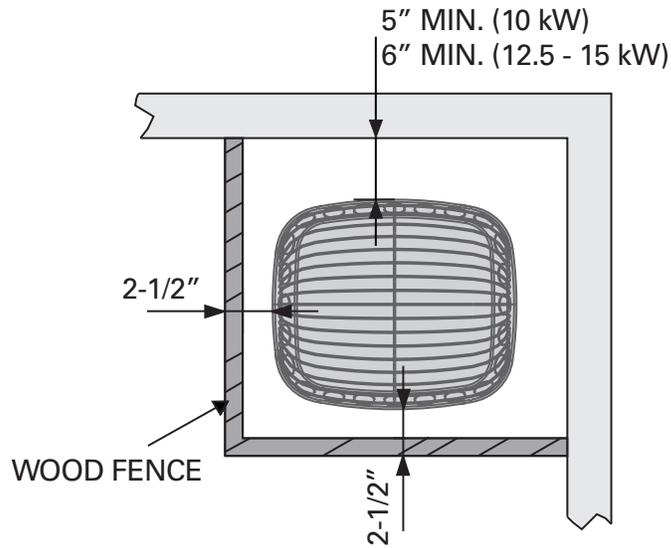


Figure 5.

HEATER MIN. CLEARANCE FROM BENCHES

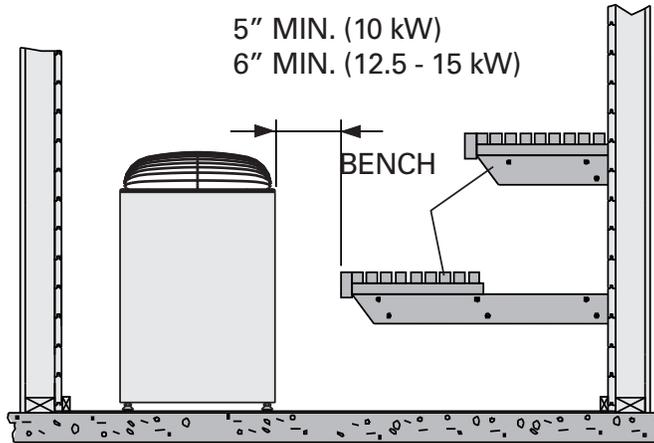


Figure 6.

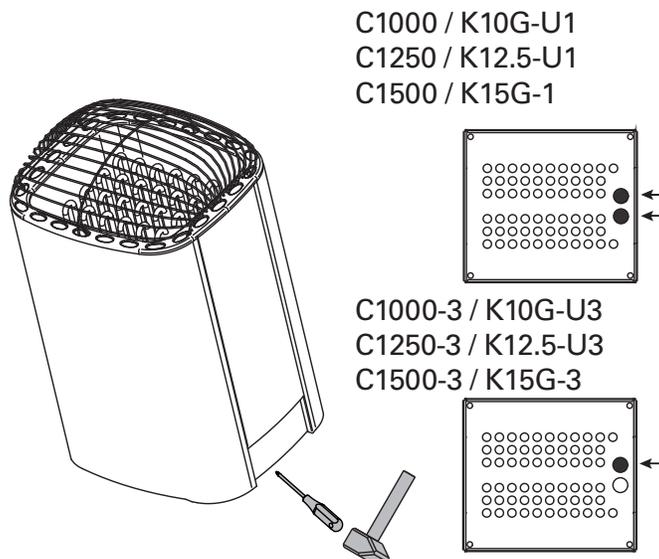


Figure 7.

INSTALLATION OF CONTROL PANEL AND SENSOR

Detailed instructions for the installation of both the control panel and the sensor are delivered with the control panel.

INSTALLATION OF HEATER

The heater may only be connected to the electrical network in accordance with the current regulations by an authorized, professional electrician.

The wiring diagrams are included in the control unit's installation instruction.

Further instructions concerning exceptional installations can be obtained from local electrical authorities.

1. Remove heater from carton and place in proper location in sauna room. Observe proper clearances as per figures 2 - 6 and table 1. After final hookup, electrical contractor should secure heater to floor with at least two screws or bolts.
2. See applicable wiring diagram for heater model (figures 8 - 9, see control unit manual for detailed instructions how to connect the heater and the control unit). Heater must be permanently installed (no pigtailed or plugs allowed) and wiring must be done by a licensed electrician, who must follow wiring diagram provided and adhere to local codes. Use proper A.W.G rated wire size and use copper wire suitable for 194°F (91°C) within sauna walls. Use grounding terminals provided in sauna heater and control unit to properly ground the equipment as per NEC and local codes.
3. Inside the heater box there are two signs. Please place the metal "CAUTION" sign on the interior wall of the sauna room directly above the heater in a visible place. Place the metal "WARNING" sign outside, on the door of the sauna room. "MAINTENANCE INSTRUCTIONS" are at the end of this manual.

SINGLE PHASE HEATER WIRING AND HOOKUP (C1000/K10G-U1, C1250/K12.5G-U1, C1500/K15G-U1)

Refer to table 2 for proper wire size and amperage. See figures 2 - 6 for required clearances. Use copper wire from breaker to wall-mounted power unit. Supply cable must have 5 wires including insulated neutral and separate ground.

Model C1000/K10G-U1 requires a HeatPad10/CX30-U1-U3 sauna heater control. Follow 240V 1Ph (dual circuit) wiring on ClubHeat series wiring schematic (page 15 of HeatPad installation and operation manual).

Models C1250/K12.5G-U1 and C1500/K15G-U1 require a HeatPad15/CX-45-U1-U3 sauna heater control, follow 240V 1Ph (dual circuit) wiring on ClubHeat series wiring schematic (page 15 of HeatPad installation and operation manual).

Use 194°F (90°C) copper wire from power unit to room light. Also use 194°F (90°C) copper wire from power unit to sauna heater (within seal tight flex conduit), and connect to junction box under heater at back, with 194°F (90°C) connector.

Cutler-Hammer model CH4F load center shall be supplied by electrical contractor.

If connection to heater will be made at a later time, bring flex into sauna room 4 - 6" from floor, and leave 3' of flex for hookup (can be cut to right length later). Before testing heater, fill rock cavity with igneous stones provided with heater and fasten metal protective grill on top of heater. (See general information info concerning washing and placing of stones.)

3-PHASE HEATER WIRING AND HOOKUP (C1000-3/K10G-U3, C1250-3/K12.5G-U3, C1500-3/K15G-U3)

Refer to table 2 for proper wire size and amperage. See figures 2 - 6 for required clearances. Use copper wire from breaker to wall-mounted power unit. Supply cable must have 4 wires including insulated neutral and separate ground.

Models C1000-3/K10G-U3 requires a HeatPad10/CX30-U1-U3 sauna heater control. Follow 208V 3Ph wiring on ClubHeat series wiring schematic (page 15 of HeatPad installation and operation manual).

Models C1250-3/K12.5G-U3 and C1500-3/K15G-U3 require a HeatPad15/CX45-U1-U3 sauna heater control. Follow 208V 3Ph wiring on ClubHeat series wiring schematic (page 15 of HeatPad installation and operation manual).

Use 194°F (90°C) copper wire from power unit to room light. Also use 194°F (90°C) copper wire from power unit to sauna heater (within seal tight flex conduit), and connect to junction box under heater at back, with 194°F (90°C) connector.

If connection to heater will be made at a later time, bring flex into sauna room 4 - 6" from floor, and leave 3' of flex for hookup (can be cut to right length later). Before testing heater, fill rock cavity with igneous stones provided with heater and fasten metal protective grill on top of heater. (See general information info concerning washing and placing of stones.)

AFTER INSTALLATION

TESTING OF SAUNA HEATER

1. After sauna heater has been properly wired, according to appropriate wiring diagram and local codes, turn sauna breaker on in the main breaker panel. (Note! Electrician must label "Sauna" breaker.)
2. Turn thermostatic (heat) control to on position (this is located either on your heater or on your remote wall control. If you have a wall control, the indicator light will come on to show that the sauna is heating). Set timer to 10- to 15-minutes.
3. Within 5-minutes, you should be able to feel heat from heater elements when holding hand over heater.
4. If the sauna does not heater, refer to troubleshooting information.
5. It is normal for smoke to appear during the first heating, as protective element coating needs to burn off. Turn sauna on for 1-hour before using for first time, to eliminate smoke.

MODEL	INPUT KW	MIN HEIGHT FT.	FLOOR AREA		SAUNA ROOM		MIN. SPACING FROM ADJACENT SURFACES (INCHES)
			Min. Sq. Ft	Max. Sq. Ft	Min. Cu. Ft	Max. Cu. Ft	
C1000/K10G-U1 C1000-3/K10G-U3	10.0	6' 5"	60	94	390	600	5
C1250/K12.5G-U1 C1250-3/K12.5G-U3	12.5	6' 5"	78	114	500	750	6
C1500/K15G-U1 C1500-3/K15G-U3	15.0	6' 5"	97	146	630	1000	6

Table 1.

MODEL	KW	AMPS	VOLT	PH	CONTROL UNIT	WIRE SIZE		
						breaker to load center	load center to power unit	power unit to heater
C1000/ K10G-U1	10.0	41.7	240	1	HeatPad10	#6 copper	(4) #8 copper	(4) #8 copper
C1250/ K12.5G-U1	12.5	52.7	240	1	HeatPad15	#6 copper	(4) #8 copper	(4) #8 copper
C1500/ K15G-U1	15.0	61.7	240	1	HeatPad15	#4 copper	(4) #8 copper	(4) #8 copper
						breaker to power unit	power unit to heater	
C1000-3/ K10G-U3	10.0	27.3	208	3	HeatPad10	#8 copper	#8 copper	
C1250-3/ K12.5G-U3	12.5	34.1	208	3	HeatPad15	#8 copper	#8 copper	
C1500/ K15G-U1	15.0	40.0	208	3	HeatPad15	#8 copper	#8 copper	

Table 2.

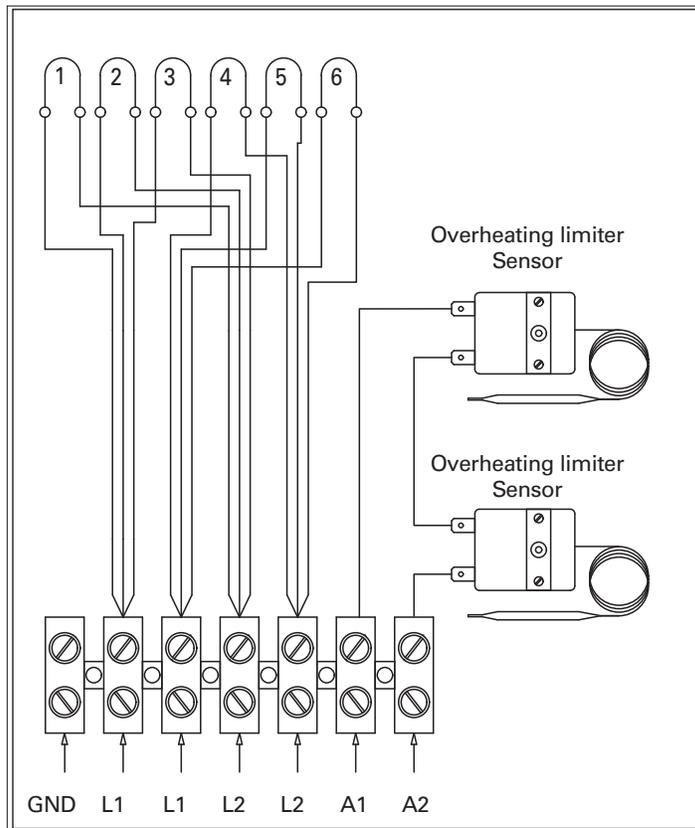


Figure 8. Electrical connections of 240 V 1-phase heaters without contactors (C1000/K10G-U1, C1250/K12.5G-U1, C1500/KG15-U1)

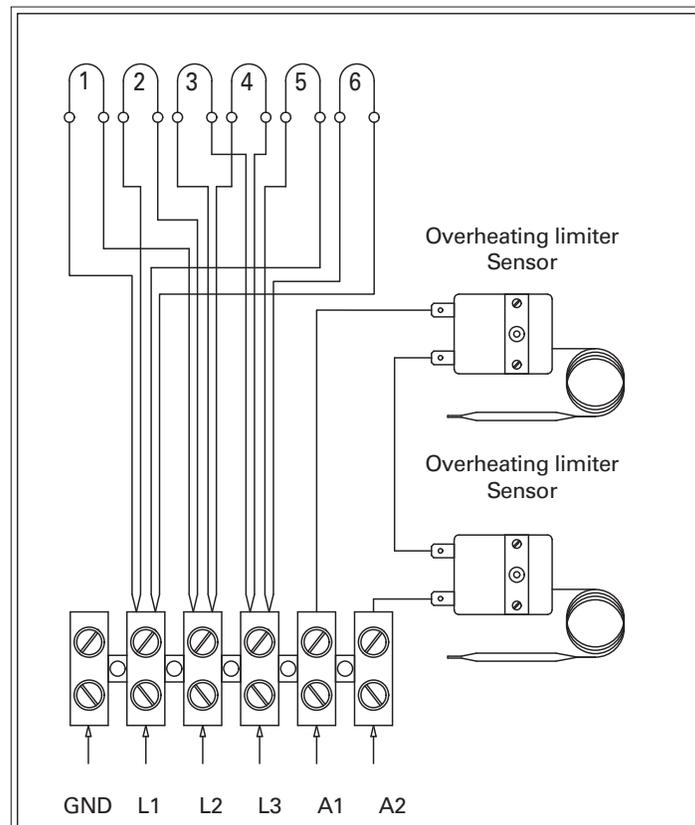


Figure 9. Electrical connections of 208 V 3-phase heaters without contactors (C1000-3/K10G-U3, C1250-3/K12.5G-U3, C1500-3/KG15-U3)

TROUBLESHOOTING

- A. If the sauna heater does not operate after initial installation and wiring:
1. Check circuit breaker in contactor to be sure that it has not been shorted out.
 2. Make sure that the current from the control unit to the heater has been switched on.
 3. Check that the desired temperature programmed in the control panel is higher than the temperature of the sauna.
- B. If the sauna has been in operation, but the heater ceases to operate:
1. Check breaker to make sure it is on.
 2. Check that there is no time left in the control panel.
 3. Check overheat limiter reset button in heater (reset is under the heater) to see if it has been released.
 4. Call your electrician or service person for further help.)

NOTE! A GROUND FAULT INTERRUPTER (GFI) should not be installed in, and does not belong in a sauna. If used, the breaker will trip, and damage could result.

- C. If the sauna heater operates, but the sauna room does not come up to sauna temperature 160 - 185°F (70 - 85°C)
1. You must allow at least 30-minutes for sauna heat-up time.
 2. Is sauna thermometer located 6" from ceiling, and is it above or close to sauna heater? (This is proper location for sauna temperature reading.) Thermometer readings vary with room heights and location. Eg. 180°F (82°C) above sauna heater = 165°F (74°C) on opposite wall = 140°F (60°C) on upper bench = 120°F (49°C) on lower bench = 100°F (38°C) at floor level.
 3. Check for proper wire size, amp size, and proper wiring (according to diagrams and information) also necessary copper wiring.

4. Check the placement of stones to make sure they are loosely spaced around elements, to ensure good air flow. Stones packed too tightly will restrict air flow and reduce heating capacity.
5. Check for heat loss (around or under door, around ceiling light or fan - we do not recommend ceiling light and a fan does not belong in the sauna.
6. Is the room properly insulated?
7. Is the ceiling higher than 7'?
8. After checking all above, remove rocks and check the heating elements for holes or burned areas. (Only if heater has been in use for some time.)

CAUTION! ELECTRICIAN OR SERVICE PERSON!

1. BEFORE SERVICING HEATER, CONTROL, OR CONTRACTOR, TURN POWER OFF AT BREAKER!
2. Open junction box to make sure wires are tightly secured with no loose connections. Heater wire and all connecting wires should be copper.
3. Check for burned spots or short in wiring of timer or thermostat.

Sauna Heater's warranty on parts is void if installer/electrician fails to follow necessary wiring information provided or fails to follow code for proper wire size, amperage, etc.

OVERHEATING LIMITER

Each heater is equipped with an overheating limiter which is a safety device. If an abnormal heating condition should occur, the heater will automatically shut off, and it will not come on again until it cools.

To reset the overheating limiter, locate the reset button (bottom front on wall models, behind junction box at back bottom of floor-mounted heaters) and push upward until contactor kicks in. If the reset button continues to trip, contact a qualified service person. Be sure that a GFI has not been installed.

MAINTENANCE INSTRUCTIONS

1. Use only clean water on sauna stones. **Do not** use spa or pool water as it will destroy your heater.
2. Clean water should always be used in sauna buckets and water should be dumped out after every use. Scour buckets and dippers occasionally when film collects from usage. Use plastic bucket liner in bucket to prevent water leakage.
3. Scrub benches with a soft brush, using soap and water or a mild disinfectant, when needed - about once a week in commercial saunas, or depending upon sauna usage. For sanitation, each bather should sit or lie on a towel (this will prolong bench life).
4. Remove possible removable flooring and wash waterproof floor with disinfectant (e.g. Pine-Sol) about once a week or as often as needed. Hose off removable flooring to clean.
5. To maintain beautiful appearance of sauna heater, remove water stains by wiping with a damp cloth occasionally.
6. Our heaters require no special maintenance when properly installed by a qualified electrical contractor. After 1 - 2 years of usage, the rocks may need replacing if they have crumbled or powdered (depending upon sauna usage).
7. We strongly recommend a floor that can be easily cleaned (concrete, ceramic tile, or a poured type of flooring). When this is provided, the sauna can be easily cleaned and kept in a sanitary condition with little effort. A carpet is NOT recommended for a sauna! A carpet becomes a perfect breeding ground for bacteria in the moist conditions of a sauna; and a carpet promotes the spread of foot diseases such as athlete's foot.
8. In new construction, a floor drain should also be provided, especially in commercial saunas for sanitary cleaning and maintenance. Seal wood around glass in door - inside and outside - with Thompson's Water Seal to prevent warpage.
9. When sauna wood becomes stained from perspiration, the wood may be lightly sanded with fine sandpaper to restore beautiful appearance. We do not recommend stains or sealers as toxic vapors may appear when heated.
10. The sauna room will heat faster if the higher vent is kept in a closed position when heating. The lower vent may always be kept in an open position.
11. Required warning signs should be posted according to the instructions.

SPARE PARTS

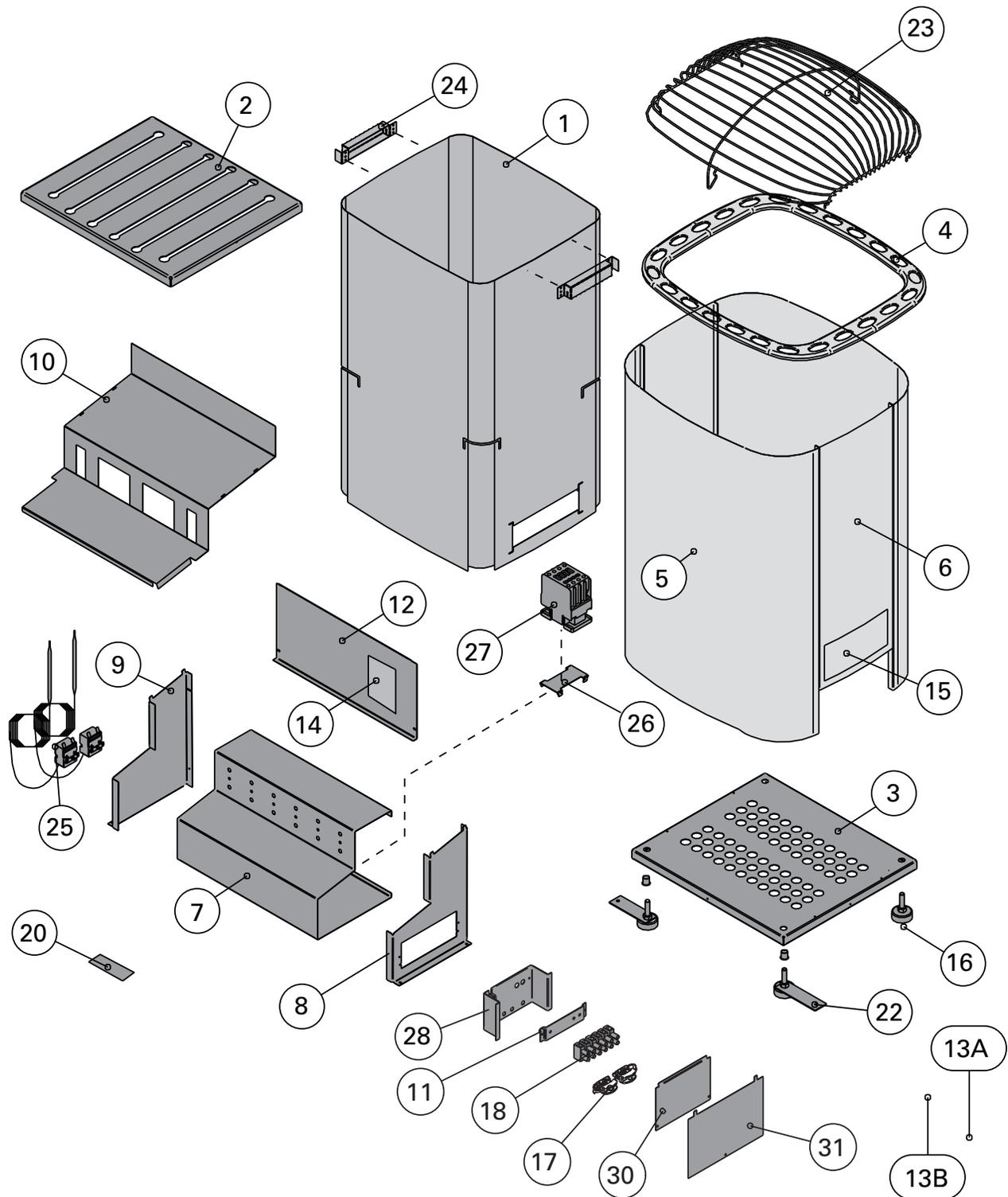
SAUNA HEATERS

C1000/K10G-U1, C1250/K12.5G-U1,
C1500/K15G-U1
C1000-3/K10G-U3, C1250-3/K12.5G-U3,
C1500-3/K15G-U3

GUARANTEE

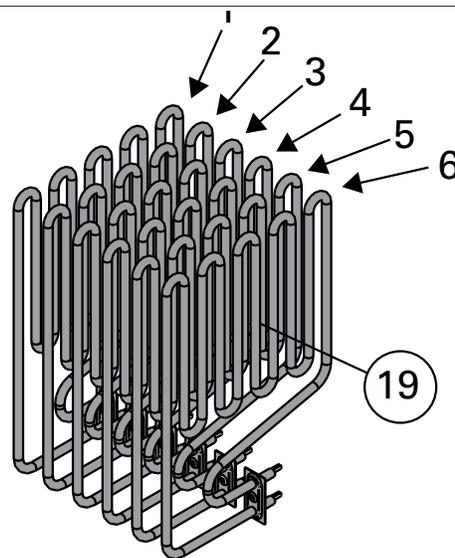
This HOTASS SAUNA heater is guaranteed for one-year from date of purchase, and includes all heater parts such as heating elements, controls, contactors, etc.

This guarantee covers faults in manufacture and material only, and



includes the exchange of new parts supplied by the manufacturer or importer, after the faulty part has been returned to same. The replacement of parts under warranty does not extend the warranty period beyond the original

1	Stone compartment
2	Stone holder
3	Base plate
4	Top part
5	Casing side L/R
6	Casing FRONT / REAR
7	Electrical casing
8	Electrical casing R
9	Electrical casing L
10	Radiation shield
11	Terminal block bracket
12	Electrical casing cover
13A	Wireset 240V 1-phase heaters
13B	Wireset 208V 3-phase heaters
14	Wiring diagram
15	Rating plate sticker
16	Adjusting leg
17	Connection cable holder
18	Terminal block
19	Heating element set
20	Terminal block sticker
21	Lead-in plastic grommet
22	Floor mounting plate
23	Protective grille
24	Overheating limiter / sensor bracket
25	Overheating limiter / switch



C1000/K10G-U1 1, 2, 3, 4, 5, 6	10 kW 1640W / 240V	HAZSSS-110
C1250/ K12.5G-U1 1, 2, 3, 4, 5, 6	12.5 kW 1640W / 240V 2350W / 240V	HAZSSS-110 HAZSPS-240
C1500/ K15G-U1 1, 2, 3, 4, 5, 6	15 kW 2350W / 240V	HAZSPS-240
C1000-3/ K10G-U3 1, 2, 3, 4, 5, 6	10 kW 1640W / 208V	HAZSSS-120
C1250-3/ K12.5G-U3 1, 2, 3, 4, 5, 6	12.5 kW 2050W / 208V	HAZSPS-250
C1500-3/ K15G-U3 1, 2, 3, 4, 5, 6	15 kW 2460W / 208V	HAZSPS-255

We recommend to use only the manufacturer's spare parts.

26	Contactor bracket	C1000/K10G-U1 C1000-3/K10G-U3 C1250/K12.5G-U1 C1250-3/K12.5G-U3 C1500/K15-U1 C1500-3/K15G-U3
27	4-pole contactor	C1000/K10G-U1 C1250/K12.5G-U1 C1000-3/K10G-U3
28	Grounding terminal	C1000/K10G-U1 C1000-3/K10G-U3 C1250/K12.5G-U1 C1250-3/K12.5G-U3 C1500/K15-U1 C1500-3/K15G-U3

WARNINGS!

Do not smoke, use alcohol, or exercise in the sauna!

Do not exceed 30-minutes in the sauna at one time, as excessive exposure can be harmful to health. The sauna should not be used as an endurance test!

Persons with poor health should consult their physicians before using the sauna!

Avoid fire, do not place any combustible material over the sauna heater (towels, bathing suits, wooden bucket or dipper)!

Use only clean water on the stones - do not use pool or spa water, as chlorine gas can be produced and the heating elements can be damaged!

Keep away from the heater when it is hot. The stones and outer surface of the heater may burn your skin.

Do not pour too much water on the stones. The evaporating water is boiling hot.

Do not let young, handicapped or ill people bathe in the sauna on their own.

Consult your doctor about health-related limitations of bathing.

Parents should keep their children away from the hot heater.

Consult your child welfare clinic about taking little babies to the sauna.

- Age?
- Temperature of the sauna?
- Time spent in the warm sauna?

Be very careful when moving in the sauna, as the platform and floors may be slippery.

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperatures of 98.6°F (37°C). The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting.

The effects of hyperthermia include:

- A) Failure to perceive heat
- B) Failure to recognize the need to exit the room
- C) Unawareness of impending hazard
- D) Fetal damage in pregnant women
- E) Physical inability to exit the room
- F) Unconsciousness

Warning - the use of alcohol, drugs or medication is capable of greatly increasing the risk of fatal hyperthermia!

one-year.

The guarantee does not cover defects caused by normal wear and tear, defects caused by improper installation, poor maintenance, or failure to follow the manufacturer's instructions for installation, use and care, or alterations made to the sauna product.

This guarantee is void if the heater is used improperly, pool or spa water should not be poured over the sauna stones, as chemicals are harmful to the heater; the sauna room must be heated for at least 30-minutes before water is poured over the stones; only one or two dippers full of water should be poured over the hot stones at one time. This guarantee will be void if a shower has been installed in the sauna room.

This guarantee does not cover delivery costs of the faulty part or costs of the person carrying out the repair in the field. If the sauna heater is returned to the manufacturer or the importer within five-years after date of purchase, the importer will provide free labor for repair, but will

charge for parts if date of purchase is past one-year.

This guarantee will be void if installation and wiring is not carried out by a certified electrician or authorized and qualified service representative, who must sign below.

This guarantee will be void if information below is not filled out and returned within 15-days of purchase, and it applies only to original installation of product and to original purchaser.

SAUNA HEATER _____

MODEL NUMBER _____

DATE OF PURCHASE _____

ORIGINAL OWNER _____

ADDRESS _____

PURCHASED FROM _____

**ELECTRICIAN CONTRACTOR
MUST SIGN HERE** _____

**DATE OF ELECTRICAL
WIRING & HOOKUP** _____



HOTASS SAUNAS

**HeatPad Precision Sauna Environment Controllers
Installation and Operation Manual**



MODELS

HeatPad10/CX30-U1-U3
HeatPad15/CX45-U1-U3



Intertek
3159549

ETL LISTED
CONFORMS
TO UL STD 875
CERTIFIED TO
CAN/CSA STD
E60335-2-53-05

IMPORTANT! This manual must be left with owner, manager, or operator of sauna after it is used by electrician!

NOTE!

These instructions for installation and use are intended for owners of saunas, heaters, and control units, persons in charge of managing saunas, heaters and control units, and for electricians responsible for installing heaters and control units. Once the control unit is installed, these instructions of installation and use are handed over to the owner of the sauna, heater and control unit, or to the person in charge of maintaining them.

HEATPAD CONTROL UNIT

Control unit's purpose of use: The control unit is meant for controlling the functions of an electric sauna heater. It is not to be used for any other purpose.

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WARNINGS!

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Persons with poor health should consult their physicians before using the sauna!

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Use only clean water on the stones - do not use pool or spa water, as chlorine gas can be produced and the heating elements can be damaged!

Keep away from the heater when it is hot. The stones and outer surface of the heater may burn your skin.

Do not pour too much water on the stones. The evaporating water is boiling hot.

Do not let young, handicapped or ill people bathe in the sauna on their own.

Consult your doctor about health-related limitations of bathing.

Parents should keep their children away from the hot heater.

Consult your child welfare clinic about taking little babies to the sauna.

- Age?
- Temperature of the sauna?
- Time spent in the warm sauna?

Be very careful when moving in the sauna, as the platform and floors may be slippery.

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperatures of 98.6°F (37°C). The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting.

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- A) Failure to perceive heat
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- E) Physical inability to exit the room
- F) Unconsciousness

Warning - the use of alcohol, drugs or medication is capable of greatly increasing the risk of fatal hyperthermia!

HEATPAD SAUNA ENVIRONMENT CONTROLLER

GENERAL

The control unit consists of a control panel, a power unit and a sensor. See figure 1.

The control unit regulates the temperature in the sauna room based on information given by the sensor. The temperature sensor and the overheat protector are located in the sensor box. The temperature is sensed by an NTC thermistor, and there is a resettable overheat protector (see section 3.4.).

The control unit can be used to delay the start of the heater (timer delay). See figure 3.

TECHNICAL DATA

Control Panel:

- Temperature adjustment range 104 - 194°F (40 - 90°C)
- Pre-setting time adjustment range 0 - 12 h
- Lighting control, max. power 100W, 120V, 1Ph
- Fan control, max. power 100W, 120V, 1Ph
- Dimensions: 3.4" x 1" x 4.4"
- 50' control cable length

Power Unit:

- Supply voltage
HeatPad 10: 240V 1Ph, 208V 3Ph
HeatPad 15: 240V 1Ph, 208V 3Ph
- Max. load
HeatPad 10: 6kW 240V 1Ph
10kW 240V 1Ph (with dual circuits)
10kW 208V 3Ph
- HeatPad 15: 8kW 240V 1Ph
15kW 240V 1Ph (with dual circuits)
15kW 208V 3Ph
- Dimensions: 14.3" x 2.9" x 10.5"

Sensor:

- Temperature Sensor NTC thermistor
22k Ω /T=77°F (25°C)
- Resettable overheat protector
- Dimensions: 2.0" x 2.9" x 1.1"
- 50' sensor cable length

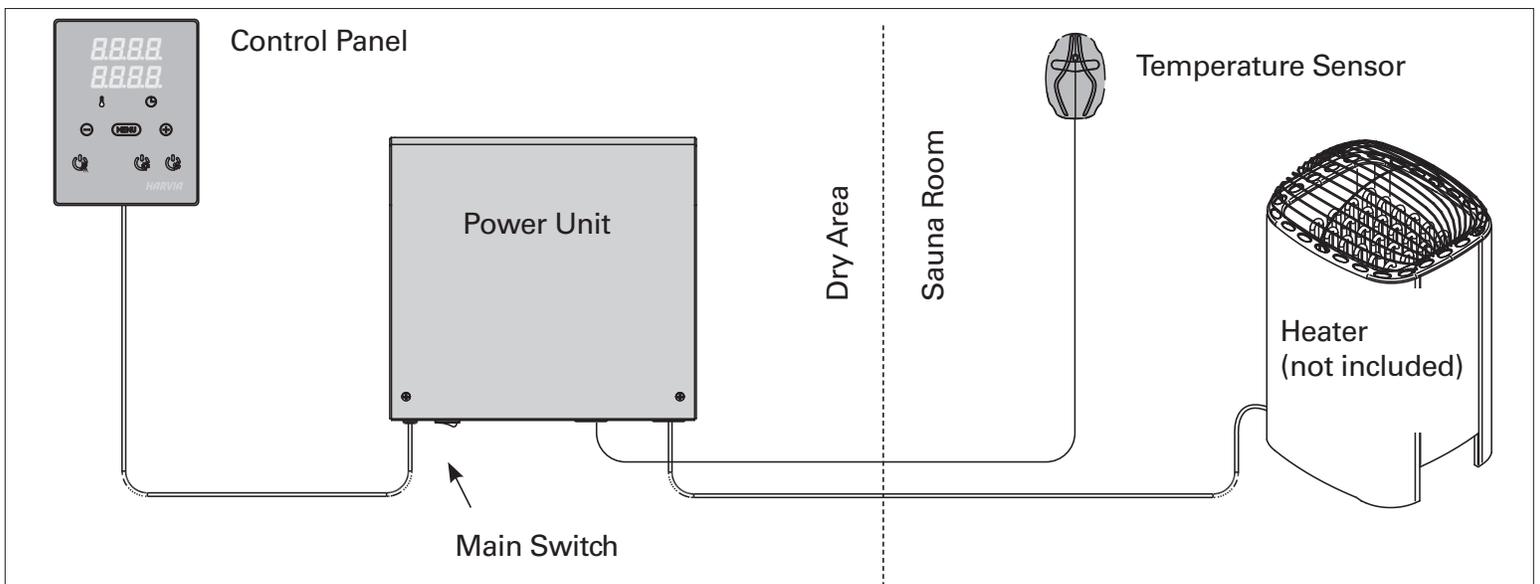


Figure 1. Control Unit Components

TROUBLESHOOTING

If an error occurs, the power to the heater will be cut off and the control panel will show an error message “E (number)”, which helps troubleshooting the cause of the error. Table 1.

Note! The overheat protector can be reset by user. All other maintenance must be done by licensed professional maintenance personnel. Control unit should not be opened by unlicensed personnel.

If the heater does not heat properly, check heater grade from settings menu. See figure 3b.

	Description	Remedy / Solution
E1	Temperature sensor’s measuring circuit broken.	Check the red and yellow wires to the temperature sensor and their connections (see figure 6) for faults.
E2	Temperature sensor’s measuring circuit short-circuited.	Check the red and yellow wires to the temperature sensor and their connections (see figure 6) for faults.
E3	Overheat protector’s measuring circuit broken.	Press the overheat protector’s reset button (see section 3.4.). Check the blue and white wires to the temperature sensor and their connections (see figure 6) for faults.
E9	Connection failure in the system.	Switch the power off from the main switch (figure 1). Check the data cable, sensor cable/s and their connections. Switch the power on. Multidrive-system (see Section 3.2.4.): Switch the power off from all power units. Check the data cable, sensor cable/s, Multidrive cable and their connections

Table 1. Error messages. Note! The overheat protector can be reset by user. All other maintenance must be done by licensed professional maintenance personnel. No user-serviceable parts inside.

STATUS MESSAGES		
SAFE	Safety switch circuit is open	Remove the object from atop the safety switch.
rESt	Pause time active	-
rc on	Remote control activated	

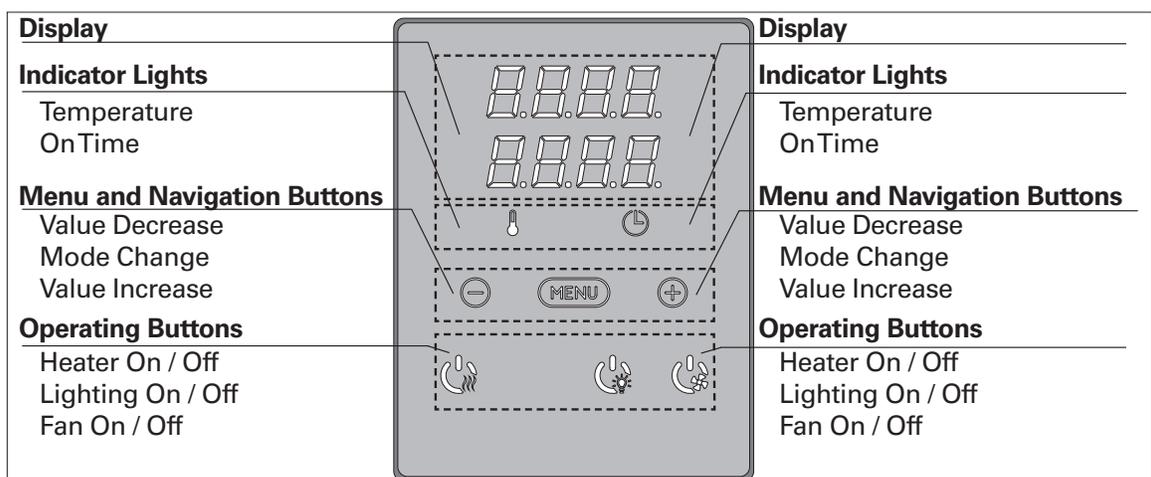


Figure 2.

INSTRUCTIONS FOR USE

USING THE HEATER

WARNING! Before switching the heater on always check that there isn't anything on top of the heater or inside the given safety distance.

IMPORTANT! Before switching the heater on for the first time, change the right heater grade from the settings menu (SET 3). See figure 3b. See the right heater grade from the heater's type label, under "control unit grade settings".

The right heater grade must be chosen to pair the control unit and the heater. Right heater grade optimizes heater and ensures the best possible sauna experience.

When the heater starts, the top row of the display will show the set temperature and the bottom row will show the set on time for five seconds.



Start the heater by pressing the I/O button on the control panel.

When the desired temperature has been reached in the sauna room, the heating elements are automatically turned off. To maintain the desired temperature, the control unit will automatically turn the heating elements on and off in periods.

The heater will turn off when the set on time runs out, the I/O button is pressed or an error occurs.

The settings menu structure and changing the settings is shown in figure 3. Changing the temperature unit (Fahrenheit/Celsius) is shown in figure 3.a.

USING ACCESSORIES

Lighting and ventilation can be started and shut down separately from their own operating buttons.

LIGHTING

The lighting in the sauna room can be set up so that it can be controlled from the control panel. (Max 100W.)



Switch the lights on / off by pressing the button on the control panel

VENTILATION

If there is a fan installed in the sauna room, it can be connected to the control unit and be controlled from the control panel.



Start/Stop the fan by pressing the button on the control panel.

SAFETY SWITCH

Safety switch refers to e.g. SFE, a safety device installed above or integrated to the heater, preventing the heater from heating should any object (e.g. towel, piece of clothing) drop or be placed on the top of the heater and can cause a fire hazard.

The switch is connected to the control unit according to their manuals. See also figure 6 in this manual.

REMOTE SWITCH

To remotely control the heater's power input, the control unit can be equipped with an on/off remote switch (e.g. building automation or time clock). For more information, see 2.3.

REMOTE CONTROL

According to the product standard IEC/ EN 60335-2-53 regulating electrical sauna heaters, a control unit can be used to remotely control the heater once the heater is equipped with a safety switch.

Using with a safety switch: The heater can be turned on remotely, if the safety switch circuit is closed. If the circuit is open, "SAFE" is displayed and the heater will not start.

Pause time: These features are limited by a pause time that prevents the heater from turning on if it has been less than 6-hours since the heater was last turned off. Trying to remotely turn the heater on during the pause time period (6-hours), text "rEst" is displayed. The heater can be remotely started after the pause time has elapsed and "rc" is displayed.

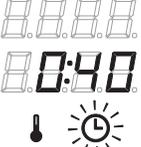
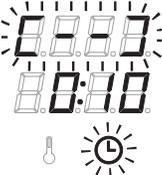
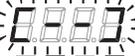
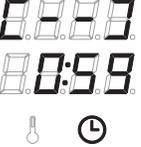
Memory for power failures: The control unit resumes operation, if the remote switch has remained in ON position.

Preset time: If the control unit is on preset delay time, it cannot be controlled with a remote switch. After the preset delay has passed and the heater is turned on, it can be turned off with a remote switch.

Operation: See page 12.

Wiring Schematic: ProHeat (pages 14).
ClubHeat (pages 15).

CONTROL PANEL LOCK

	<p>Press and hold the heater and light buttons for three seconds.</p>
	<p>-CL- is shown on the display. Panel lock can be activated only in standby mode. Panel lock also prevents remote start.</p>
	<p>Basic Mode (heater on) The top row shows the temperature in the sauna room. The bottom row shows the remaining on time. Both indicator lights glow. </p>
	<p>Press the MENU button to open the settings menu.</p>
	<p>The display shows the sauna room temperature setting. Temperature indicator light blinks.</p> <ul style="list-style-type: none"> Change the setting to the desired temperature with the - and + buttons. The range is 104 - 194°F (40 - 90°C). The programmed temperature is stored in memory and will also apply when the heater is switched on next time.
	<p>Press the MENU button to access the next setting.</p>
	<p>Remaining on-time Press the - and + buttons to adjust the remaining on-time. </p> <p>Example: The heater will be on for 40-minutes.</p>
	<p>Set the timer delay in remaining on time mode:</p> <ul style="list-style-type: none"> Press the + button to set the on time to maximum (1:00). Press the + button to enter the timer delay mode. The temperature indicator light switches off. Timer delay symbol blinks on the screen.  Select the desired delay time using the - and + buttons. The time changes in 10-minute steps. Press and hold the button to make the time change faster. The adjustment range is from 10-minutes to 12-hours. <p>Example: The heater will start after 10-minutes.</p>
	<p>Exit by pressing the MENU button.</p>
	<p>Basic Mode (timer delay running, heater off) The bottom row shows the remaining delay time. The decreases of time is shown until zero appears, after which the heater is switched on and will start to heat the sauna room.</p>

ADDITIONAL SETTINGS

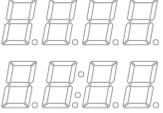
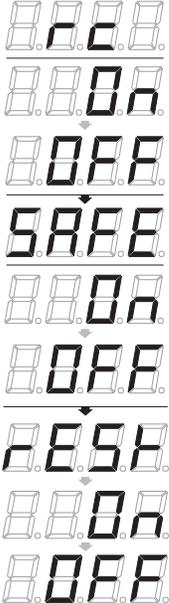
	<p>Control unit standby</p>
	<p>Open the settings menu by simultaneously pressing the locations of the buttons -, MENU and +. Press for 5-seconds.</p> <p>! The buttons do not glow when the control unit is already in stanby mode.</p>
	<p>Settings the remote use and safety switch</p> <p>Set the remote use (rc) ON/OFF with - and + buttons.</p> <p>Confirm the selection with the MENU button.</p> <p>Set the safety switch (SAFE) ON/OFF with - and + buttons.</p> <p>Confirm the selection with the MENU button.</p> <p>When remote use is ON the menu will show setting for pause time (rest). Enable or disable the pause time feature with buttons + and -. Pause time must be enabled, if the control unit is remotely started by an automated scheduled (e.g. a weekly timer).</p> <p>! See sections 2.2.3. and 2.3. for further infromation</p>
	<p>Press the menu button till SET2 appears in the screen. Change the temperature unit with the - and + buttons. The options are Fahrenheit (FAHR)* and Celsius (CELS).</p>
	<p>Press the MENU button to accept the set. Press the MENU button again and the next set will appear or the control unit switches to standby mode.</p>

Table 3a. Settings menu structure, additional settings

* Factory Setting

	<p style="text-align: center;">CONTROL UNIT GRADE SETTINGS</p> <p style="text-align: center;">C2 (FOR EXAMPLE)</p> <p>All heater grades: A1, A2, A3, A4, A5 B1 (default), B2, B3, B4, B5 C1, C2, C3, C4, C5 D1, D2, D3, D4, D5 E1, E2, E3, E4, E5, E6</p>
	<p>Heater grade Heater grade can be changed with the - and + buttons. See the right grade from the heater's type label, under "control unit grade settings".</p>
	<p>Press the MENU button to accept the set. Press the MENU button again and the next set will appear.</p>
	<p>Sauna dehumidifying interval The sauna dehumidifying interval turns the fan on (IF installed / accessory) and dries out the sauna room to keep it in a good condition. The sauna dehumidifying interval can be turned ON or OFF*). The interval will begin when the devices are switched off from the I/O buttons or when the set on-time runs out. The length of the interval is 45-minutes. When the time runs out, the fan turns off automatically. The interval can also be stopped manually at any time by pressing the I/O button.</p>
	<p>Press the MENU button to accept the set. Press the MENU button again and the next set will appear or the control unit switches to standby mode.</p>

Table 3b. Changing the heater grade (See Section 2.1.)

* Factory Setting

INSTRUCTIONS FOR INSTALLATION

The electrical connections of the control unit may only be made by a licensed professional electrician and in accordance with the current regulations. When the installation of the control unit is complete, the person in charge of the installation must pass on to the user the Instructions for Installation and Use that come with the control unit and must give the user the necessary training for using the heater and the control unit.

INSTALLING THE CONTROL PANEL

The control panel is splashproof and has a low operating voltage. The panel can be installed in the dressing room, or in the living quarters. If the panel is installed in the sauna room, it must be installed at least 1.5' away from the heater and at a maximum height of 3' from the floor. Figure 4.

Conductor tubing (1-3/16") inside the wall structure allows you to thread the data cable hidden within the wall - otherwise the installation will have to be on the wall surface. We recommend you to install the control panel embedded in to the wall and far away from possible splashes.

INSTALLING THE POWER UNIT

Install the power unit to a wall outside the sauna room, in a dry place with an ambient temperature more than 32°F (0°C). See figure 5 for instructions on how to open the power unit cover and how to fix the unit to the wall.

Note! Do not embed the control unit into the wall, since this may cause excessive heating of the internal components of the unit and lead to damage. See figure 5.

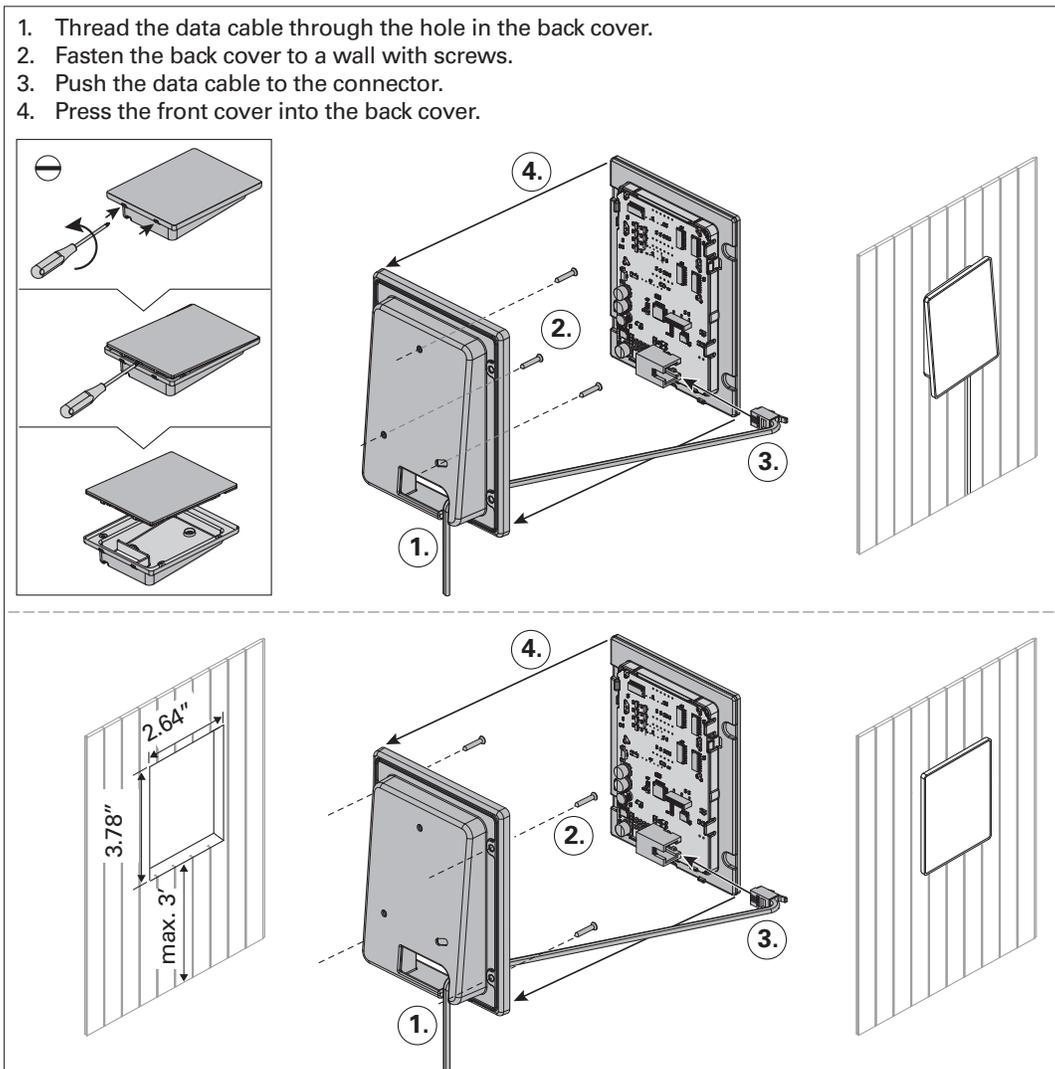


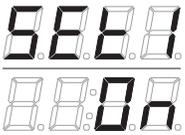
Figure 4. Fastening the control panel

OPTIONAL TIMECLOCK OPERATION

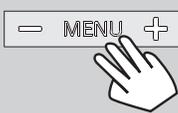
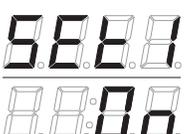
HeatPad10/HeatPad15 control units can be installed with an optional time clock for customized on/off operation. See page 16 for optional time clock electrical connections.

SETTING HEATPAD FOR 24HR OPERATION

Step 1

	<p>Open the settings menu by simultaneously pressing the locations of the buttons -, MENU and +. Press for 5-seconds.</p> <p>! The buttons do not glow when the control unit is already in standby mode.</p>
	<p>Settings the remote use and safety switch</p> <p>Set to ON then press Menu button to accept and set.</p>

Step2

	<p>Open the settings menu by simultaneously pressing the locations of the buttons -, MENU and +. Press for 5-seconds.</p> <p>! The buttons do not glow when the control unit is already in standby mode.</p>
	<p>Maximum on-time</p> <p>The maximum on-time can be changed with the - and + buttons. The range is 1 - 24 hours (6 hours*).</p> <p>Example: The heater will be on for 6 hours from the start. (Remaining on-time can be changed, see figure 3a.)</p>
	<p>Press the MENU button to accept and set. Press the MENU button again 2 times to exit.</p>

ELECTRICAL CONNECTIONS

The heater and control unit may only be connected to the electrical network in accordance with the current regulations by a licensed professional electrician.

Figure 6 shows the electrical connections of the power unit. For more detailed installation instructions see The Instructions for Installation and Use of the selected heater model.

INSTRUCTIONS FOR INSTALLATION

The power unit of the HeatPad10 and HeatPad15 are controlled by the control panel.

- Control panel is connected to power unit via data cable.
- Only one control panel can be connected to the power unit.

Temperature Sensor:

- PTS-1015 is needed to operate HeatPad10 and HeatPad15. See section 3.3 for correct temperature sensor placement.

Two relay outputs (120V 1Ph):

- For driving a fan (max. 100W) and lighting (max. 100W).

Breakers on the electronics card (if a breaker has blown, see Section 3.2.3.):

- 40 mA breaker for electronic unit.
- Two 2.5 Ah breakers for relay outputs U1, U2, A1, A2.

Technical specifications:

- Max. length of data cable: 80' (25m)

POWER UNIT BREAKER FAULTS

Replace a blown breaker by a new one with the same resistance. The replacement of the breakers in the power unit is shown in figure 6.

- If the breaker F2 for the electronic unit has blown, there is likely a fault in the power unit and it might need to be replaced. Service is required.
- If the breaker F3 has blown, there is a problem with lighting or fan. Check the wiring and functioning of lighting and fan.
- If the breaker F1 has blown, there is a problem with the heater's overheat protector circuit. In the heater, check the safety contactor circuit, overheat protector and their wiring.

NOTE! Only a qualified licensed electrician should replace the electronic card or fuse of the control unit, by following the necessary precautions!

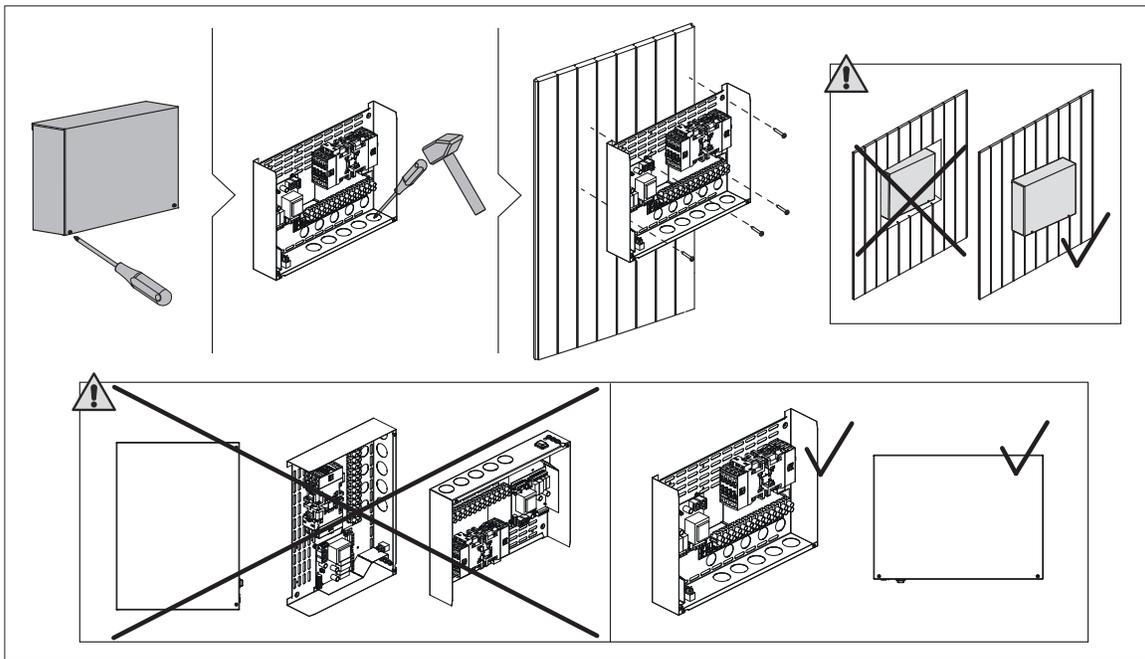


Figure 5. Opening the power unit cover and mounting the unit to a wall

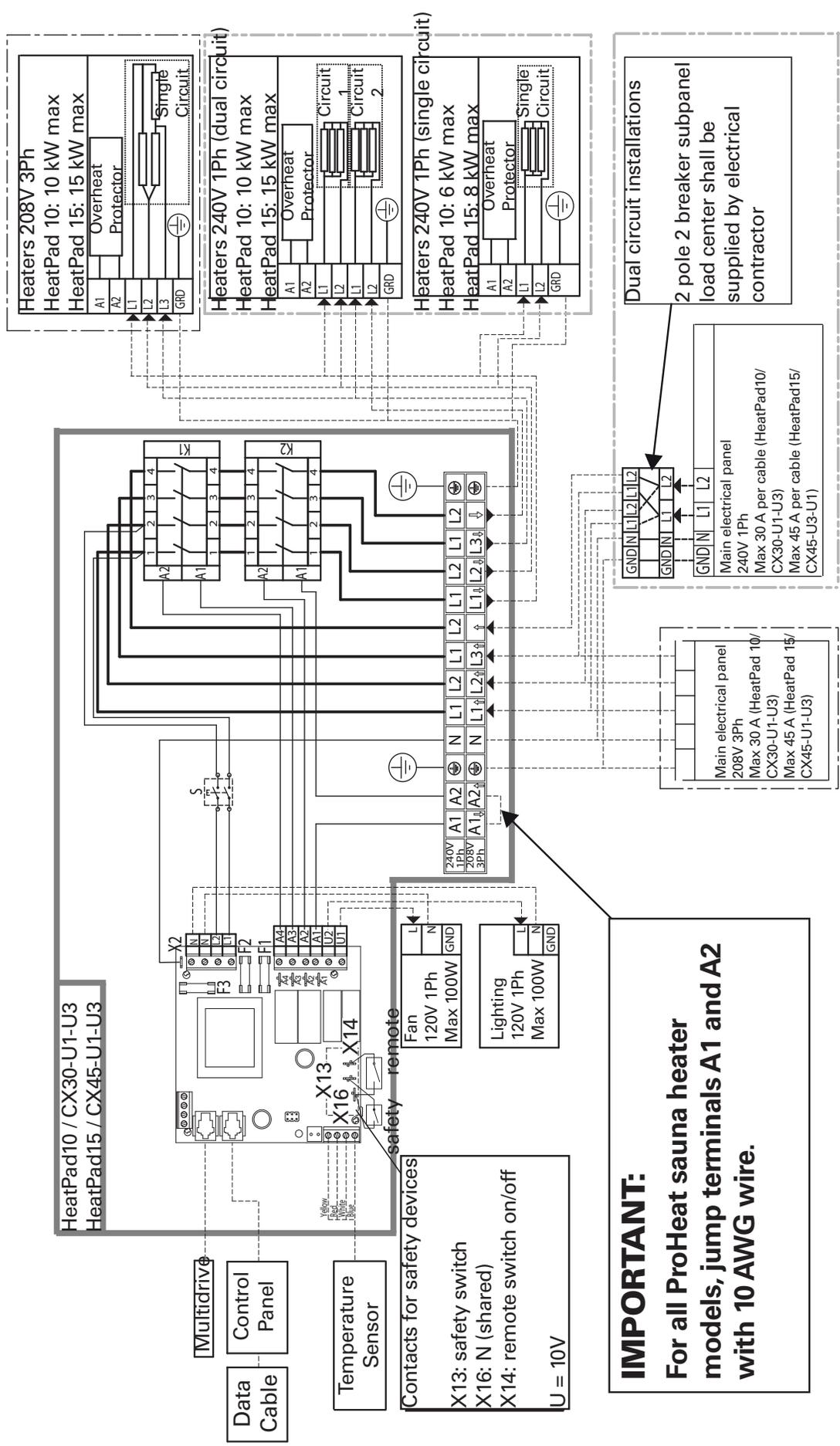
PROHEAT SERIES SAUNA HEATERS ONLY

- K1 & K2 = contactors (30A in HeatPad 10 or 45A in HeatPad 15)
- S = Main Switch
- F1 = Breaker for relay outputs (T2.5AH, Ceramic Slow Type)
- F2 = Breaker for electronic card (T40mA, Slow Type)
- F3 = Breaker for relay outputs (T2.5AH, Ceramic Slow Type)

Factory wiring (18 AWG)

Factory wiring 2x (10 AWG)

Installation wiring



IMPORTANT:
For all ProHeat sauna heater models, jump terminals A1 and A2 with 10 AWG wire.

Dual circuit installations
2 pole 2 breaker subpanel load center shall be supplied by electrical contractor

Main electrical panel
208V 3Ph
Max 30 A (HeatPad 10/
CX30-U1-U3)
Max 45 A (HeatPad 15/
CX45-U1-U3)

Main electrical panel
240V 1Ph
Max 30 A per cable (HeatPad10/
CX30-U1-U3)
Max 45 A per cable (HeatPad15/
CX45-U3-U1)

Figure 6.1 Electrical connections (HeatPad10/CX30-U1-U3 and HeatPad15/CX45-U1-U3) for ProHeat Sauna Heater models (P300/KIP30W1, P450/KIP45W1, P600/KIP60W1, P800/KIP80W1, P600-3/KIP60W3, and P800-3/KIP80W3).

CLUBHEAT SERIES SAUNA HEATERS ONLY

- K1 & K2 = contactors (30A in HeatPad 10 or 45A in HeatPad 15)
- S = Main Switch
- F1 = Breaker for relay outputs (T2.5AH, Ceramic Slow Type)
- F2 = Breaker for electronic card (T40mA, Slow Type)
- F3 = Breaker for relay outputs (T2.5AH, Ceramic Slow Type)

208V 3Ph

240V 1Ph

- Factory wiring (18 AWG)
- Factory wiring 2x (10 AWG)
- - - Installation wiring

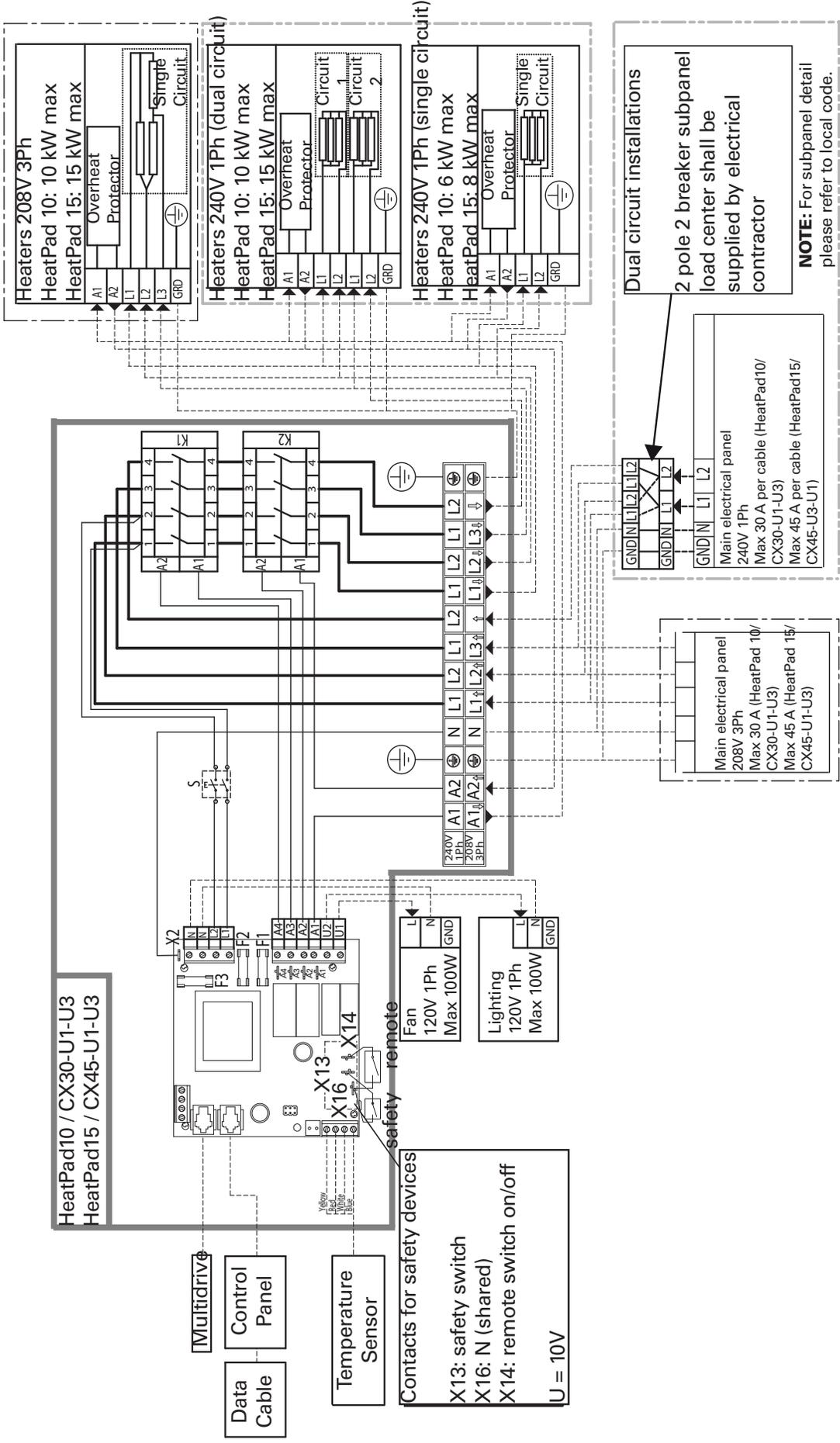


Figure 6.2 Electrical connections (HeatPad10/CX30-U1-U3 and HeatPad15/CX45-U1-U3) for ClubHeat Sauna Heater models (C1000/K10G-U1, C1250/12.5G-U1, C1500/K15G-U1, C1000-3/K10G-U3, C1250-3/K12.5G-U3, and C1500-3/K15G-U3).

OPTIONAL TIME CLOCK ELECTRICAL CONNECTIONS

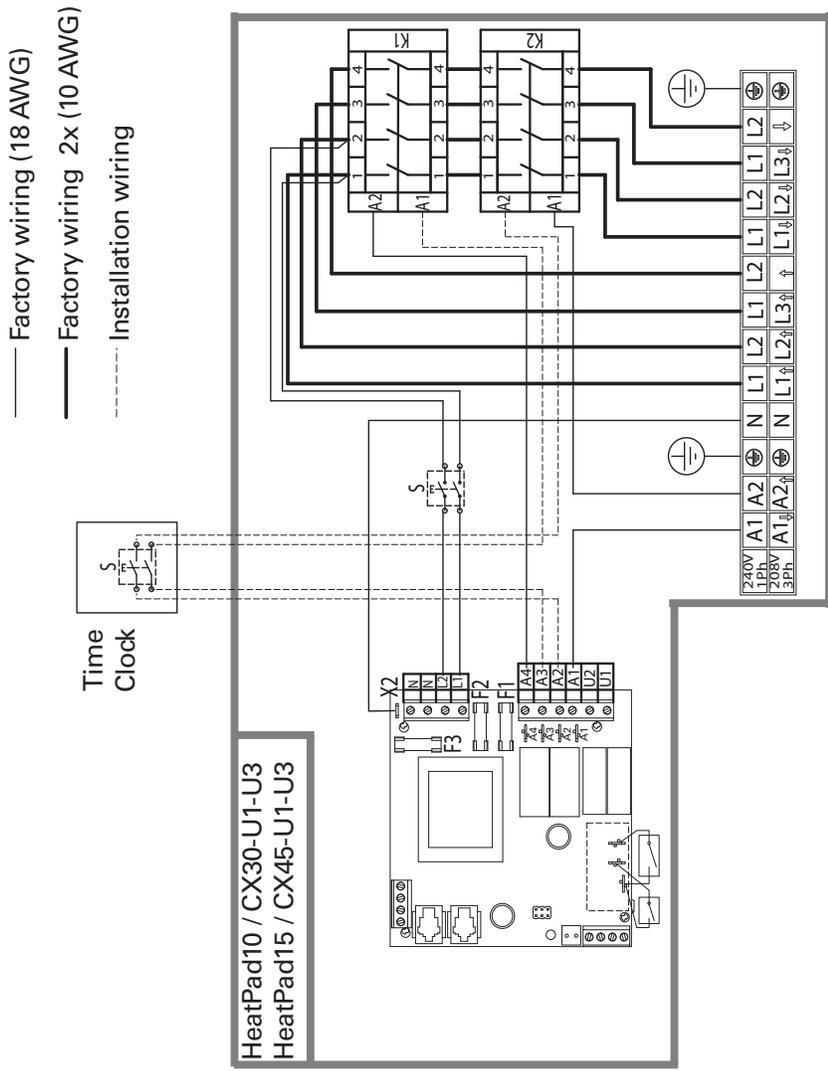


Figure 6.3 Optional Time Clock Electrical Connections (HeatPad10/CX30-U1-U3 and HeatPad15/CX45-U1-U3) for all ProHeat and ClubHeat sauna heater models.

MULTIDRIVE

Up to 8 power units can be connected in series so that they can share the same control panel. The connection principle is shown in figure 7.

1. Connect the control panel to the first or last power unit in the chain.
2. Connect the temperature sensor to the first power unit in the chain.
3. Install the sensor in the sauna room as described in section 3.3.
4. Install a wire loop to the temperature sensor terminals in other power units.
5. Connect the power units together with Multidrive cables.

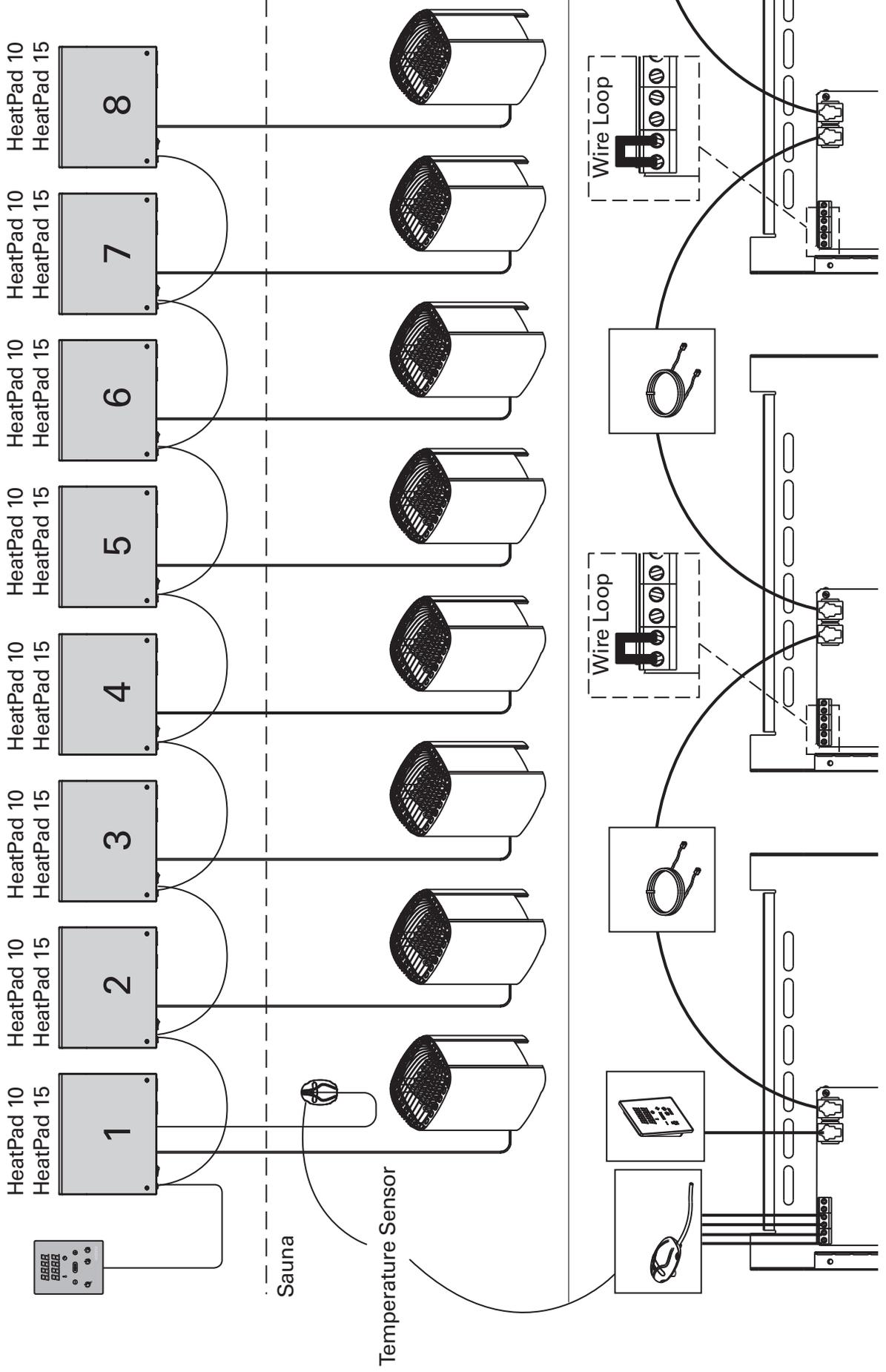


Figure 7. Multidrive

INSTALLING THE TEMPERATURE SENSOR

Floor-mounted heaters (see figure 8)

- The temperature sensor is mounted on the wall above the heater, along the vertical center line running parallel to the sides of the heater, at a distance of 3-15/16" from ceiling.

Wall-mounted heaters (see figure 9)

- The temperature sensor is wall-mounted above the heater, along the vertical center line running parallel to the sides of the heater, at a distance of 3-15/16" from the ceiling.

NOTE! The wire of the sensor can be extended with similar type of wire. Not exceeding 80' (25m).

RESETTING THE OVERHEAT PROTECTOR

The sensor box contains a temperature sensor and an overheat protect. An NTC thermistor senses the temperature, and the resettable overheat protector cuts off the heater power in a case of malfunction, after which the protect can be reset. See figure 11.

Note! The reason for the going off must be determined before the button is pressed.

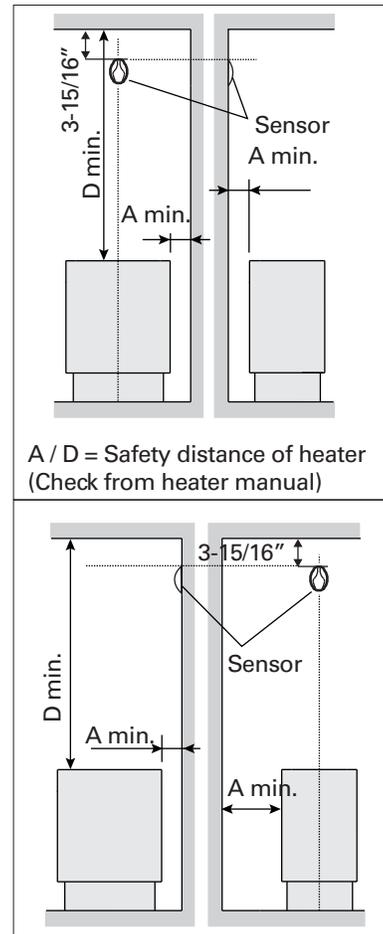


Figure 8. The placement of the temperature sensor of the control unit in connection with floor-mounted heaters.

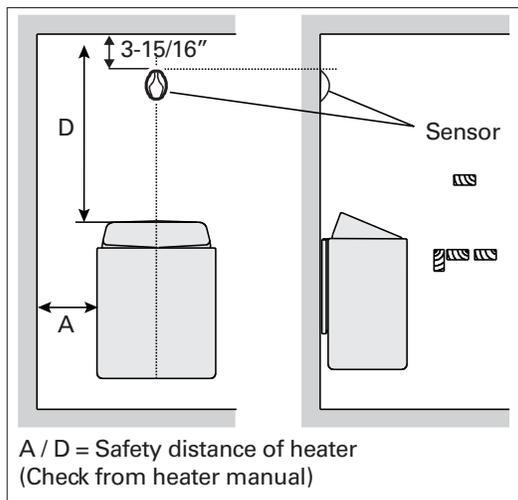


Figure 9. The placement of the temperature sensor of the control unit in connection with wall-mounted heaters

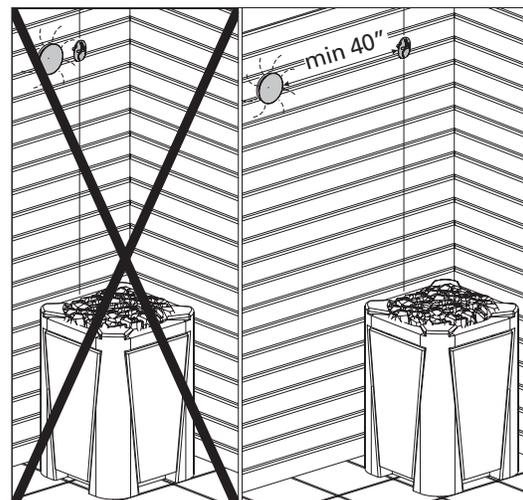


Figure 10. Sensor's minimum distance from an air vent

Do not install the temperature sensor closer than 3' 3-3/8" to an air vent. This air flow near an air vent cools down the sensor, which gives inaccurate temperature readings to the control unit. As a result, the heater might overheat. See figure 10.

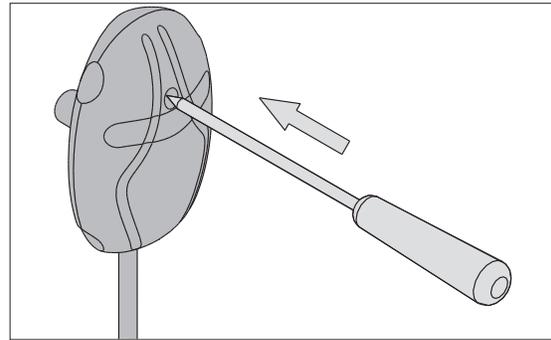
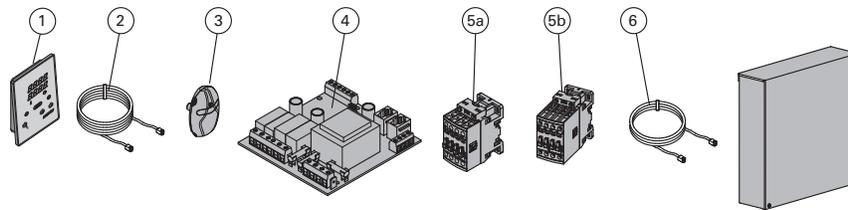


Figure 11. Reset button of the overheating protector

SPARE PARTS

Use only parts approved by the manufacturer!



1	Control panel
2	Data cable 50'
3	Temperature sensor, 50'
4	Circuit board
5a	Contactora 30 A (HeatPad10/CX30-U1-U3)
5b	Contactora 45 A (HeatPad15/CX45-U1-U3)
6	Multidrive cable 5' (optional)

MAINTENANCE INSTRUCTIONS

1. All service operations must be done by professional licensed maintenance personnel. Control unit should NOT be opened by unlicensed personnel.
2. Wipe dust and dirt from the power unit and the control panel with a damp cloth. DO NOT use running water!
3. Prevent any water from going inside the power unit at anytime.
4. The control panel is splashproof.

WARNINGS!

Do not smoke, use alcohol, or exercise in the sauna!

Do not exceed 30-minutes in the sauna at one time, as excessive exposure can be harmful to health. The sauna should not be used as an endurance test!

Persons with poor health should consult their physicians before using the sauna!

Avoid fire, do not place any combustible material over the sauna heater (towels, bathing suits, wooden bucket or dipper)!

Use only clean water on the stones - do not use pool or spa water, as chlorine gas can be produced and the heating elements can be damaged!

Keep away from the heater when it is hot. The stones and outer surface of the heater may burn your skin.

Do not pour too much water on the stones. The evaporating water is boiling hot.

Do not let young, handicapped or ill people bathe in the sauna on their own.

Consult your doctor about health-related limitations of bathing.

Parents should keep their children away from the hot heater.

Consult your child welfare clinic about taking little babies to the sauna.

- Age?
- Temperature of the sauna?
- Time spent in the warm sauna?

Be very careful when moving in the sauna, as the platform and floors may be slippery.

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperatures of 98.6°F (37°C). The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting.

The effects of hyperthermia include:

- A) Failure to perceive heat
- B) Failure to recognize the need to exit the room
- C) Unawareness of impending hazard
- D) Fetal damage in pregnant women
- E) Physical inability to exit the room
- F) Unconsciousness

Warning - the use of alcohol, drugs or medication is capable of greatly increasing the risk of fatal hyperthermia!

GUARANTEE

This HOTASS SAUNA heater is guaranteed for one-year from date of purchase, and includes all heater parts such as heating elements, controls, contactors, etc.

This guarantee covers faults in manufacture and material only, and includes the exchange of new parts supplied by the manufacturer or importer, after the faulty part has been returned to same. The replacement of parts under warranty does not extend the warranty period beyond the original one-year.

The guarantee does not cover defects caused by normal wear and tear, defects caused by improper installation, poor maintenance, or failure to follow the manufacturer's instructions for installation, use and care, or alterations made to the sauna product.

This guarantee is void if the control is used improperly.

This guarantee does not cover delivery costs of the faulty part or costs of the person carrying out the repair in the field. If the control unit is returned to the manufacturer or the importer within five-years after date of purchase, the importer will provide free labor for repair, but will charge for parts if date of purchase is past one-year.

This guarantee will be void if installation and wiring is not carried out by a certified electrician or authorized and qualified service representative, who must sign below.

This guarantee will be void if information below is not filled out and returned within 15-days of purchase, and it applies only to original installation of product and to original purchaser.

SAUNA HEATER _____

MODEL NUMBER _____

DATE OF PURCHASE _____

ORIGINAL OWNER _____

ADDRESS _____

PURCHASED FROM _____

ELECTRICIAN CONTRACTOR

MUST SIGN HERE _____

DATE OF ELECTRICAL

WIRING & HOOKUP _____