



Trinity™

Owner's Manual

Combination Sauna



Operating instructions for your Trinity™ Combination Sauna

Guidelines and helpful tips

Congratulations on your purchase of your Trinity™ Combination Sauna. We are confident that you will enjoy the many benefits for years to come.

Carefully read this manual before using your Trinity™ for the first time. We recommend keeping this manual for review and future reference.



Finnmark Designs

Ultimate Sauna Experience

Welcome to the Finnmark family!

By owning a **Trinity™**, you're taking a powerful step for your health—and you can enjoy the ultimate relaxation in your home whenever you want.

Each sauna is made with the highest-grade materials—including 100% hand-selected Western Red Canadian Cedar—and is built to be easy to use, with low radiation for the whole sauna and the highest safety standards in the industry.

With your Trinity™, you also enjoy such excellent features as our Spectrum Plus™ heaters (which are backed by a lifetime warranty), responsibly and sustainably certified Western Canadian Cedar wood, medical grade LED therapy, Bluetooth® compatible audio components, Harvia™ traditional steam heater as well as additional features designed to enhance your lifestyle and wellness.

We are happy to have you join us and look forward to sharing in your experience as you take control of your health and support your relaxation with your Trinity™ combination sauna.

By making sauna use a regular part of your routine, you'll enjoy anti-aging, disease-preventing, and longevity benefits—all without leaving the comfort of your home.

Enjoy!

Your Finnmark Designs Family

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The information contained in this manual is subject to change without notice.

A. Installation & Maintenance

1) How to choose a location

When choosing a location for your Trinity™ keep these two things in mind: One, your sauna should be placed on a solid surface. Two, your sauna must be placed in a dry area.

Here are the installation requirements for your new sauna.

1. Your sauna should not be built into any structure. It is a self-contained and freestanding unit.
2. To allow easy access to the main power cord, ensure there's a minimum of 3-inches of clearance from the top wall and all sides of the unit.

Moisture may cause damages to the exterior of your sauna. Your basement, attic, garage, playroom, spare bedroom, new extension, and garden chalet are a few possible locations for your sauna. Finnmark Designs Thermal Plus™ beautiful wooden exterior should complement your house beautifully.

If you choose to place your sauna outdoors, you must use a cover (see page 25) or Finnmark Design's custom roof to protect your sauna. Don't place the sauna on a surface that easily gets wet or where snow commonly accumulates. Placing your sauna outside without a cover or roof will void your warranty.

2) Cleaning & maintenance

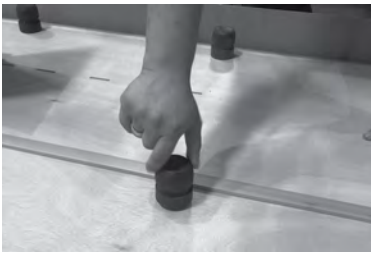
1. Before using your Sauna for the first time, use a damp cloth to clean the inside of the sauna. You can use a natural furniture polish or bees wax to clean the exterior.
2. To burn off any factory dust before using your sauna for the first time, turn the sauna on for the maximum time and temperature. For maximum performance of the heaters, cycle your **Trinity™** (turn on to max temperature and run for one hour) 2-3 times.
3. Remove any scratches and stains on the inside of the sauna using a fine grade sandpaper over the damaged area.
4. A customized **Trinity™ cover** is available as an accessory for all models. Use of this protective storage cover will not only preserve the natural beauty of the sauna but will also help in maintaining it for years of continuous enjoyment.
5. We recommend applying a heavy furniture polish or bees wax to the outside of the sauna before putting the (optional) cover on. The polish will create a barrier for better protection.

A. Installation & Maintenance

Step 1: Bottom and back panel

1. Find the bottom panel.

Turn the bottom panel upside-down and install the feet.



Turn the bottom panel back over and place it in position where the sauna will be assembled.



2. The front left of the sauna will have the hole on the floor to route your wiring for a traditional heater.

3. Place the back-right panel onto the bottom panel. Have someone hold the back panel upright so it does not fall over.



4. Place the right panel onto the bottom panel.



A. Installation & Maintenance

- Using a screwdriver, secure the back panel to the left side panel with the (4) provided screws.



Step 2: Bench supports and left panel.

- Set the left panel in place and secure the panel with the (4) additional screws.
- Place the bench support. **Plug in the heater cable from the bench support to the back wall. Plug the floor cable into the back wall.**
- Slide the top bench on the bench support.
- Slide the bottom bench on the lower bench support.



A. Installation & Maintenance

Step 3: Front Panel and Top Panel

1. Fold the glass door against the sauna. Lift the **left side** of the panel onto the sauna frame. Do not lift the top **right bar of the sauna**.

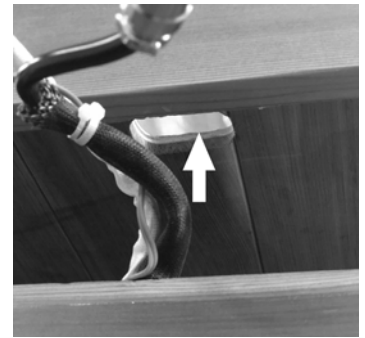


2. Use provided screws to secure the front panel to the left and right panel.

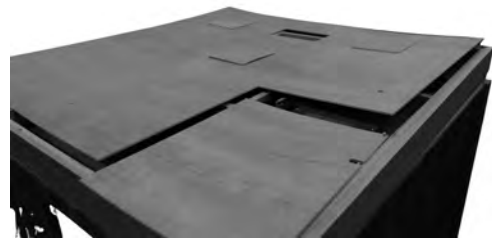
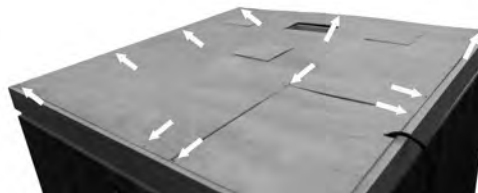


4. Use (6) screws to secure the front panel. Do not overtighten.

5. With two people, place the top panel over the sauna and feed the data wire through the hole on the top right of the sauna.



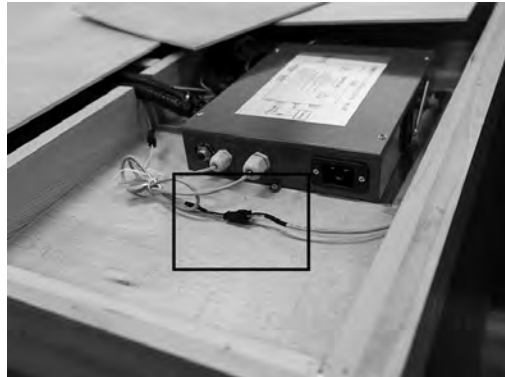
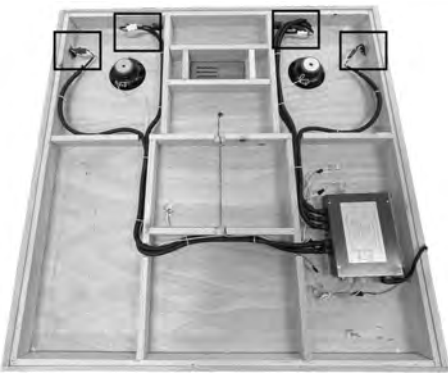
6. With the lid in place remove the screws on the dust panel to access the power supply and heater connections.



A. Installation & Maintenance

Step 4: Power supply and heater connections

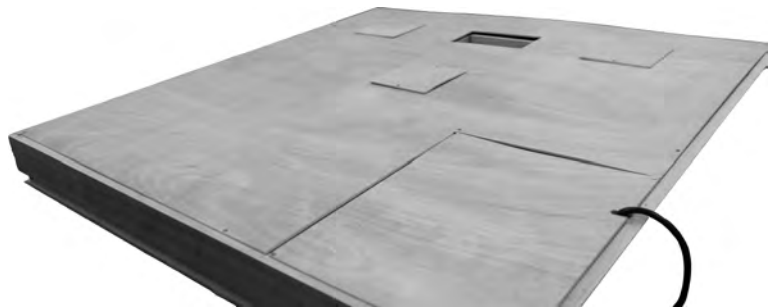
1. Connect all (5) heater connections in ceiling. (2 white) (2 Red) (1 Blue)
2. Connect data cable to power supply.
3. Connect power cable to power supply.



4. Replace the power supply cover screws.



5. Replace the top dust cover screws and feed the power cable through the hole.



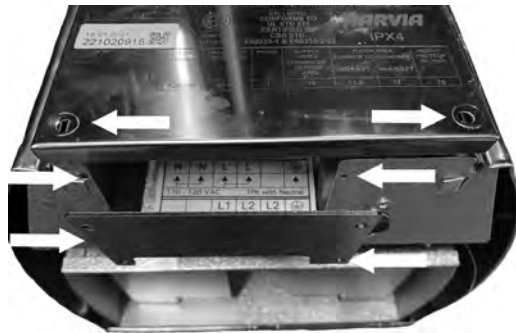
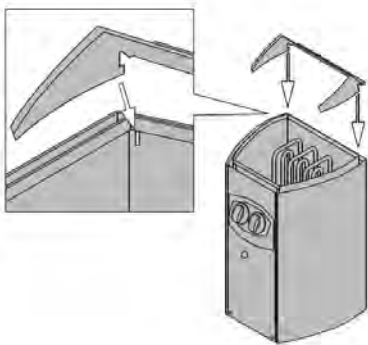
A. Installation & Maintenance

Step 5: Harvia Heater Installation

1. Find the Harvia mounting plate in the Harvia heater box.
2. Place the back plate on mounting block, use provided level and mark each hole.
3. Use provided (6) screws and mount the back plate using a drill.



4. Place the heater reflector on the Harvia heater using the side notches.
5. Place heater on floor and remove (2) front screws and (4) bottom panel screws.
6. **Provide Harvia heater installation manual to licensed electrician.**



A. Installation & Maintenance

Step 6: Door Handle

1. Use the provided screws (2) to mount the door handle to the door.



Step 7: Plug In the power cable for infrared heaters.

Your installation is complete!

The installation of your new **Trinity™ sauna** is now complete! Use a damp cloth to wipe out the sauna to remove any excess sawdust that may have settled on the wall, heaters, or floor.

B. Getting Started

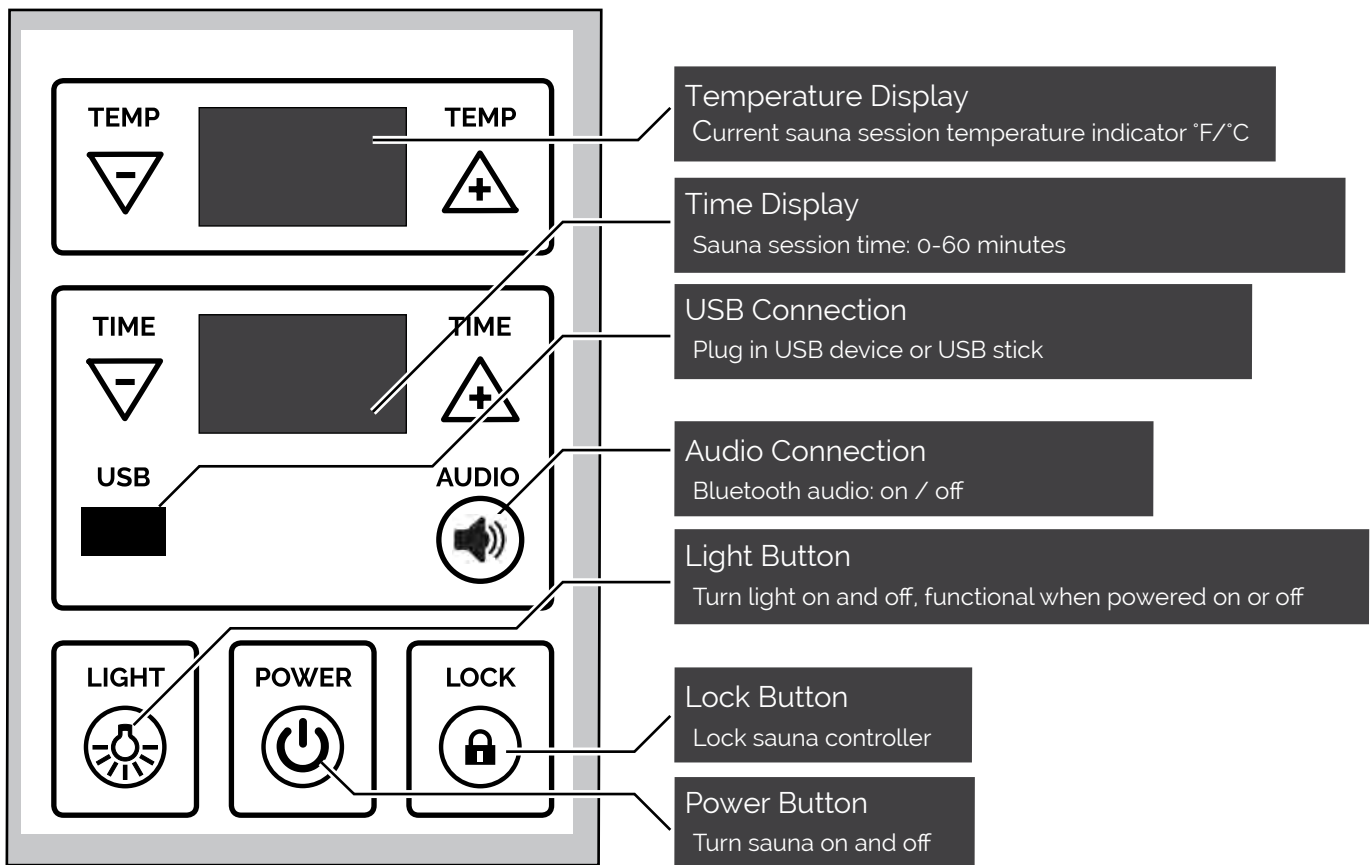
1) Preparing for your first infrared sauna home experience.....

1. Review all health and safety instructions. If you're in doubt about using your **sauna**, first consult with your physician.

2. The interior of the **Trinity™** is made of the finest Western Canadian Red Cedar.

The cedar is aromatic and adds to the enjoyment of your sauna session. If the fragrance of the fresh wood is too strong during the first few months, first wipe the wood with a damp cloth to minimize the aroma.

2) Digital control panel



B. Getting started

3) Powering on your sauna

1. Plug in the power cord to the electrical outlet. All lights on the LED Control Panel will flash once.
2. During Off mode, nothing will display.
3. We recommend turning the sauna on for the maximum time and temperature in order to burn off any factory dust before using your sauna for the first time. For maximum performance of the heaters, cycle your sauna (turn on to max temperature and run for one hour) 2-3 times.

4) Starting up your sauna

1. Tap and hold the Power button for approximately 5 seconds to start up your sauna.
2. The temperature display will indicate the current cabin temperature. If the ambient temperature within the cabin is below 90°F/30C°, the display will read "LO."
3. The time display will indicate the sauna session time. When the time button is tapped, it will change the time in five-minute increments. The maximum session time is 60 minutes.
4. The Light button will illuminate to indicate that the interior LED panel is turned on. To turn Off, simply tap Light again.



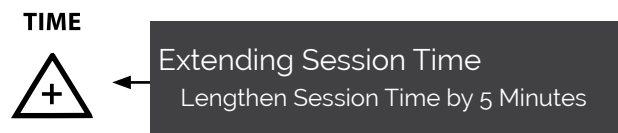
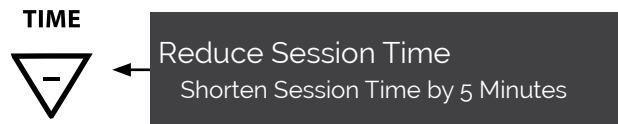
The controller is touch sensitive, so you must hold down the power button for 2-3 seconds.

B. Getting Started

5) Setting the sauna session time and temperature

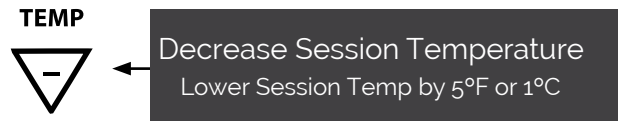
Session Time

1. Tap the Time+ or Time- buttons to adjust the sauna session time.
2. The session time will change in 5-minute increments and can be set between 5 and 60 minutes per session.

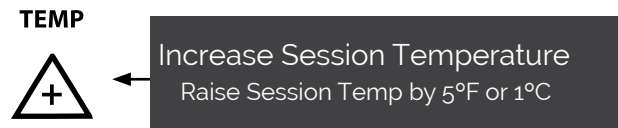


Session Temperature

1. Tap the Temp+ or Temp- button to adjust the sauna session temperature.
2. In Fahrenheit mode (°F), the temperature can be adjusted 5 degrees at a time.
Min. Temp: 90°F, Max Temp: 170°F



3. In Celsius mode (°C), the temperature can be adjusted 1 degree at a time.
Min. Temp: 30°C, Max Temp: 75°C



6) Changing between Fahrenheit and Celsius

1. Tap and hold the Power button for approximately 5 seconds to start up your sauna.
2. Tap the Temp- and Temp+ buttons **at the same time** and hold for approx. 5 seconds until the display reads "F-C".
3. Tap the Temp- and Temp+ buttons **at the same time** to change to the desired mode (°F or °C).
4. Tap the Temp- and Temp+ buttons **at the same time** and the display will read "OST".

5. Tap the Temp- and Temp+ buttons **at the same time** and the display will read "S-L".

6. Tap the Temp- and Temp+ buttons **at the same time** once more and the display will show the current temperature.

Note:

If the display shows "S" and the controller is beeping, simply repeat steps 2-5 and tap the Temp- and Temp+ buttons **at the same time** until the display reads "L". Then tap the Temp- and Temp+ buttons one last time.

B. Getting Started

7) Using Bluetooth & USB

1. When the sauna is on, tap the audio button so the light is illuminated.
2. Open your Bluetooth settings on your device.

AUDIO



Audio button
Connect to Bluetooth audio

3. Select BT-SAUNA from the list of available connections.
4. Once connected press Temp + and Temp - to adjust the audio level. You can also use your device to adjust audio levels.

1. When the sauna is on, tap the audio button so the light is illuminated.
2. Place a high-quality USB audio device into the USB slot.

USB



USB
Connect to USB

3. Once connected, the screen will display USB.
4. Press the Temp + and Temp - to adjust the audio level. You can also use your device to adjust audio levels.

8) Locking your sauna's control panel

1. Tap both the Lock and Temp- buttons at the same time and hold for approximately 5 seconds.
2. You will hear a beep and "LOCK" will appear on the upper right corner of the time display.
3. During Lock mode, all buttons will not be responsive in either On or Off modes and the Lock button will illuminate.
4. To release the Lock function, tap both the Lock and Temp- buttons at the same time and hold for approximately 5 seconds.

TEMP



LOCK



To Lock and Unlock Your Sauna
Tap and Hold Both the Temp- and
Lock Buttons for Approx. 5 Seconds

B. Getting started

9) Changing your sauna's settings during a session

1. If you want to adjust the temperature during a session, tap the Temp+ or Temp- buttons.
 - When your sauna session has 5 minutes left, the sauna will beep letting you know your session is almost over.
2. If you want to adjust the session time, simply tap the Time+ or Time- buttons.
3. If you want to turn Off the sauna in the middle of a session, tap and hold the Power button until your sauna turns Off.

B. Getting started

11) Error codes

EO EO: Temperature Sensor Disconnected. Reset sauna. Unplug and plug back in. Call customer support if needed.

E1 E1: Short circuit. Check all connections.

HH HH: Inside Sauna Temperature is over the limit (170°F/76°C).

HH error will be resolved automatically. During HH error, your sauna will automatically shut down and go into a cool-down period.

12) Customer service

Contact Information for Customer Service:

- Telephone No. : _____ **(800) 983-0067**
- Email : _____ **saunas@finnmarkdesigns.com**

C. Helpful tips for enjoying your sauna sessions

Your Trinity™ is equipped with Spectrum Plus™ infrared heaters. Infrared heat waves reach the body directly without having to heat the air inside the sauna.

Spectrum Plus™ infrared heaters are UL listed to ensure your safety using our sauna is top priority. These heaters will not degrade or fail prematurely like carbon heaters when introduced to a traditional heater's steam. Spectrum Plus™ infrared heaters were specifically manufactured for this purpose.

1) Preparing for your infrared session

- 1. Review all health and safety instructions.** If in doubt as to the advisability of using your sauna, consult with your physician.
- 2.** The interior of the **Trinity™** Sauna is made of the finest Western Canadian Red Cedar. It is aromatic and adds to the enjoyment of your sauna session. If the fragrance of the fresh wood is too strong during the first few months of use, first wipe the wood with a damp cloth to minimize the aroma.
- 3.** Always **drink plenty of water** before, during and after a session. Doing so will replenish fluids lost during perspiration.
- 4.** Do not eat anything at least an hour before your sauna session. It is better to **go in the sauna on an empty stomach.** You are more likely to feel uncomfortable sitting in a sauna with a full stomach.
- 5. Choosing to take a hot shower or bath prior to the sauna session will further promote perspiration.** However, dry off thoroughly before going into the sauna because excessive water will leave stains and might warp the wood.

- 6. Provide at least 2-3 towels.** One towel folded over several times for added cushioning on the bench. Another towel on the floor to absorb extra sweat. And a third towel to wipe off sweat.
- 7. Start up your sauna and select the desired session temperature and time** using the control panel (see page 6 and next page).
- 8. Allow approximately 15 to 20 minutes for the sauna to warm up** to a comfortable temperature before beginning a session (warm up time is subject to the air temperature and is different for each model).

Infrared Temperature (170°F)	Time
Trinity™ 4x4	50-60 Min
Trinity™ 5x7	50-60 Min
Coming Soon	TBD


***Please Note:** Your sauna's maximum temperature setting may not be achieved based on variations in ambient room temperature, air flow, placement of sauna, etc. If you are experiencing unusual warm-up times or if you have recently moved your sauna from one location to another, please call our technical support team for thermostat calibration help.*

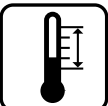
C. Helpful tips for enjoying your sauna sessions

2) Setting session time and temperature

Your body will probably need a few weeks to fully adapt to regular use of your Sauna.

Here are some average guidelines to set the time and temperature once you are used to the sessions:

1.  **Time:**
Noticeable results are usually obtained with sessions of at least 30 minutes. For therapeutic use, sessions of 45 minutes are advised.

2.  **Temperature:**
Many beginners need to start with a lower temperature and work their way up to a higher temperature. Some studies show therapeutic benefits at 163°. Influence Saunas get to 170°. If perspiration does not start after 10 to 15 minutes, this usually indicates that the temperature is set too low to obtain good results.

When using your Sauna for the first time:

- **Do not do more than three sessions a week during the first four weeks.** You can do daily sessions after six weeks, if desired.
- **If you do not feel comfortable or relaxed during a session, lower the temperature** and/or open the door of the cabin.

C. Helpful tips for enjoying your sauna sessions

3) Useful information and tips for during your sauna session

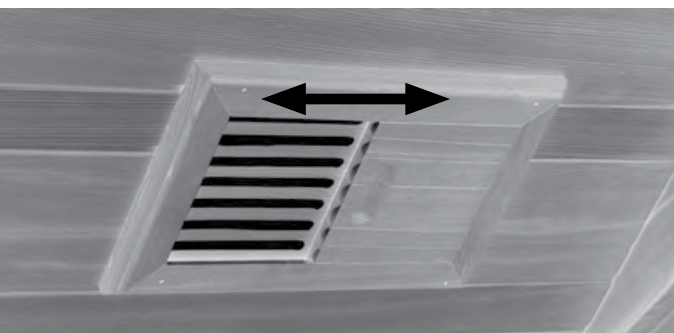
1. Make sure you have a towel on the floor and on the bench of the sauna to absorb perspiration.

In order to maintain a clean and pleasant atmosphere inside your sauna, do not leave damp towels on the bench or floor. Remove them immediately after the session is over.

2. Be sure to towel off excess sweat during your session to help the body perspire more freely.

3. When the temperature reaches the level set on the control panel, the heaters will turn off and on periodically in order to maintain the desired temperature level inside of the sauna.

4. The ceiling vent on the top panel can be opened at any time to introduce fresh air into the sauna.



5. If you feel the need for more cooling, simply leave the door open until the air around you feels comfortable enough.

6. Do not put any lotions or oils on the body or face prior to using the sauna. This may block the pores and hinder perspiration.

7. Essential oils can help you to find more tranquility during your session.

8. To make the most out of your sauna session, work your muscles while in the sauna. Stretch your arms, legs etc. to help relieve sore and tense muscles and massage the affected areas while in the sauna. If you wish to achieve a deep heating effect to a specific area, move it closer to a heater.

9. To relieve your ankles and feet more effectively, you must elevate them while inside the sauna.

10. Shaving your face or legs with a razor while profusely sweating in a sauna yields an incredibly smooth result without the use of gels or foams.

11. Do not forget to drink plenty of water before, during and after sessions to replenish lost fluids through perspiration.

12. After the session is over, do not immediately jump into the shower. Since your body was heated up during the session, it will continue to sweat even after the heaters are off. **Sit in the sauna with the door open and let your body cool off.** Once you feel comfortable enough, take a warm (or cool) shower to rinse the perspiration off your body.

D. Safety precautions

1) General safety precautions

1. Read Instructions

- Carefully read all safety and operating instructions before operating your sauna.
- Retain these safety and operating instructions for future reference.
- Do not smoke or light any fire inside your sauna.
- To reduce the risk of injury, do not allow small children to use the sauna unless they are closely supervised at all times.
- Do not use the sauna immediately after hard exercise. Wait at least 30 minutes to allow your body to cool down completely.
- Exercise care when entering or leaving the sauna.
- Never sleep inside the sauna while the unit is in full operation.

- Unplug the sauna from the wall outlet before cleaning. Use a damp cloth for cleaning. Do not use liquid cleaners or aerosol cleansers inside the sauna.
- Do not use this product near water. For example, near a bathtub, in a wet basement, or near a swimming pool.
- Do not use attachments that are not recommended by the manufacturer, as they may cause a hazard.
- The sauna must be placed under an awning or overhang to prevent heavy rain falling directly onto the roof or outdoor cover.
- Do not stack or store any objects on top of or inside the sauna.
- Use precaution when using electronic devices.
- Do not install aftermarket devices.

2) Medical and health related precautions

- If you intend to use far infrared therapy for medical reasons, please consult your physician prior to using the sauna.
- Excessive temperatures have a high potential for causing fetal damage during the early months of pregnancy. Pregnant or possibly pregnant women should consult their physician prior to using the sauna.
- The use of alcohol, drugs, or medications prior to or during the sauna session may lead to unconsciousness.
- Persons suffering from obesity or with a medical history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician prior to using the sauna.
- Persons using medications should consult a physician before using the sauna since some medications may induce drowsiness while others may affect heart rate, blood pressure, and circulation.

- At the first sign of a cold or flu, increasing your sauna sessions may be beneficial in boosting your immune system and decreasing the reproductive rate of the viruses. Consult your physician for the proper treatment and care for this, before you start using your sauna.

7. Hyperthermia Danger

Prolonged exposure to hot air will induce hyperthermia. Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F/37°C. While hyperthermia has many health benefits, it is important not to allow your body's core temperature to rise above 103°F/39,4°C. Symptoms of excessive hyperthermia include dizziness, lethargy, drowsiness, and fainting. The effects of excessive hyperthermia may include failure to perceive heat, failure to recognize the need to exit, unawareness of impending hazard, fetal damage in pregnant women, physical inability to exit the sauna, and unconsciousness.

*These statements have not been evaluated by the Food and Drug Administration. These statements are for informational purposes only and are not intended as a substitute for medical counseling. This information is not intended to diagnose, treat, cure, or prevent any disease. The author and publisher shall have neither liability nor responsibility to any person or entity with respect to any loss, damage, or injury caused directly or indirectly by the information contained herein.

D. Safety Precautions

3) Power supply related precautions

- 1. Dry your hands before handling electrical controls.**
Never unplug the power cord or adjust the controls with wet hands or when you have wet bare feet. A danger of electrical shock exists.
- 2. Your sauna is intended for use with a 3-wire properly grounded power socket.** Do not defeat the safety purpose of the supplied line cord and plug.
- 3. This product should be operated only from the type of power source indicated on the marking label.** If you are not sure of the type of power supplied to your home, consult your local power company or electrician.
- 4. Power supply cords should be routed so they are not likely to be walked on or pinched by items placed upon or against them.**
- 5. For added protection during a thunderstorm,** or when it is left unattended and unused for long periods of time, unplug it from the wall outlet.
- 6. Do not overload wall outlets and extension cords** as this can result in a risk of fire or electrical shock.
- 7. Always unplug this product from the wall outlet before servicing the product.**
- 8. Do not remove power supply covers.** No user-serviceable parts are located inside the power supply.
- 9. We strongly recommend the use of a GROUND FAULT CIRCUIT INTERRUPTER (GFCI) device** in any potentially wet locations.

2) Warranty precautions

- 1. When replacement parts are required, be sure to use replacement parts specified by the manufacturer** or have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electrical shock or other hazards and will void the manufacturer's warranty.
- 2. If the power supply cord becomes damaged,** it must immediately be replaced by the manufacturer or its agent or a similarly qualified person to avoid hazard.
- 3. Altering or tampering any electrical connections** on the power supply will void the manufacturer's warranty.
- 4. Do not attempt any repair without consulting the manufacturer first.** Unauthorized repair attempts will void the manufacturer's warranty.
- 5. Your sauna is made of the finest Canadian Cedar. All natural wood products have variations in the color, the grain, and irregularities, such as knots and fine cracks. These characteristics are part of the natural beauty of the wood and in no way should be considered defective.**
- 6. Upon completion of any service or repairs to this product** by a service technician, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

E. Troubleshooting Guide

Question	Answer
<p>Control panel is beeping and showing an error message.</p>	<ul style="list-style-type: none"> • The temperature sensor inside your control panel housing has been disconnected. Remove control panel and confirm the two pin connection is securely fastened.
<p>There is no heat coming from my front heaters.</p>	<ul style="list-style-type: none"> • First thing you want to do is check the white Molex connection inside the sauna. It's located at the top left of the sauna if you're sitting on the bench. You want to make sure that it is plugged in correctly. • Check heater power cable connections on the power supply.
<p>All other Sound System problems:</p>	<ul style="list-style-type: none"> • Unplug the sauna, wait 10 minutes, then plug back in.
<p>What are the electrical requirements for my new sauna?</p>	<ul style="list-style-type: none"> • Trinity™ = 15a 120v 1750 watts • Harvia™ Vega Compact = 20a 120v 1900 watts (need an electrician)
<p>My new sauna is completely dead.</p>	<ul style="list-style-type: none"> • Make sure the power cord is plugged into the sauna power supply and the other end is plugged into the wall socket. • Try pressing breaker button on the sauna power supply. • Unplug the sauna and plug something else, such as a lamp or radio, into the wall socket to verify there is power to that socket. If there is no power, check the house circuit breaker for that line.

E. Troubleshooting Guide

Question	Answer
<p>The controller display is faint or does not display correctly in some other way.</p>	<ul style="list-style-type: none"> Try unplugging the sauna for about 5 minutes, then plug it back in. This should correct any display problems.
<p>The sound system works, but nothing lights up on the controller display. I unplugged the sauna for 5 minutes but it didn't help.</p>	<ul style="list-style-type: none"> Check to see that the data cable is plugged in at both ends- the round metal connector plugs into the "DATA" port on the power supply.
<p>The sound system doesn't turn on.</p>	<ul style="list-style-type: none"> If the problem persists, please contact customer service.
<p>The LED light panel in the ceiling turns on white, but none of the buttons on the remote control work.</p>	<ul style="list-style-type: none"> Make sure the thin plastic tab is pulled out from the battery holder. Make sure you are aiming the remote control at the center of the light panel, not at the sauna controller. Replace the battery in the remote control.

E. Troubleshooting Guide

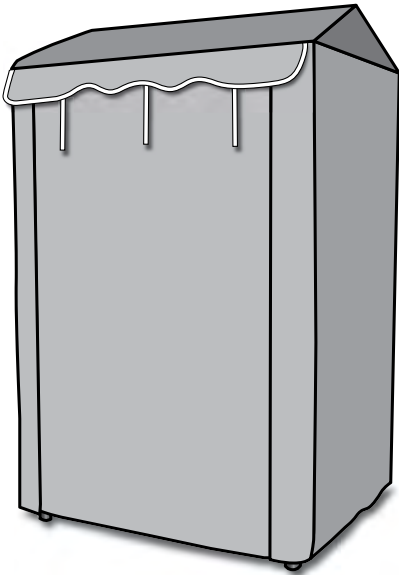
Question	Answer
Wrong A.C. Power cord	<ul style="list-style-type: none"> • Please confirm you are using the correct outlet to power your sauna.
House circuit breaker is tripping.	<ul style="list-style-type: none"> • Check that the amperage of the breaker corresponds with the amperage rating of your sauna. Make sure that the circuit is not overloaded by having too many appliances on one circuit. Please contact a local electrician.
Where is the serial number on my new sauna?	<ul style="list-style-type: none"> • Look for a manufacturer's label under the seat.

Please contact the manufacturer with any other questions regarding customer service or troubleshooting.

(800) 983-0067 | saunas@finnmarkdesigns.com

F. Outdoor Cover

A) Outdoor cover



Important:

1. The sauna must be placed under an awning or overhang to prevent rain falling directly onto the roof.
2. Sauna should be placed on sturdy, dry level ground when outdoors (not grass, gravel, dirt, etc.)
3. The **snap buttons** must be clipped on at all times.
4. The **zippers must be closed** when the sauna is not in use.
6. Warm up times may vary based on outdoor temperature.



Please follow these instructions step by step to install your outdoor cover.



G. Limited Warranty

Finmark Designs warrants the Sauna to be free of defects in material and workmanship.

Heaters - Spectrum+	Lifetime
Heaters - Carbon	10 years
Craftsmanship:	10 years
Electrical Components:	10 years
Audio Components:	10 years
Harvia Vega Compact:	2 Years (Residential)
Commercial Use:	5 Years

Company warrants to the user during the warranty period that the Sauna Cabin will maintain its structural integrity. The factory-installed components (i.e., heater controls, power supply, electrical wiring, and audio system) will be free from defects in material or workmanship. This limited warranty shall not apply to any display model unless expressly agreed by **Finmark Designs** in writing at the time of purchase or to any Sauna installed more than six months after the delivery date.

This warranty extends only to the original retail purchaser of the sauna and terminates upon transfer of ownership. It does not extend to commercial or institutional use or installation.

Freight charges to and from the customer are the responsibility of the customer (flat fee). This includes freight charges for parts shipped to enable the services of your sauna.

This warranty is void if the sauna has been subjected to alteration, misuse, abuse, accident, natural disaster or non-factory authorized modification or repair. This warranty is also void if the sauna has been operated or **maintained** in deviation to the published instructions. The warranty extends only to the manufacturing defects and does not cover any damages resulting from mishandling of the product by the owner. This warranty does not cover any normal wear and tear due to usage. This warranty also does not cover any damages caused by natural weather conditions even when the sauna is covered with the factory authorized outside cover. Broken glass and light bulb, whatever the cause, are not covered by this warranty.

Finmark Designs shall not be liable for the loss of use of the sauna or other incidental or consequential damages. Under no circumstances shall Influence Sauna or any of its representatives be held liable for injury to any person or damages to and properties. Some states allow limitations on how long specified warranty lasts. Some states do not allow exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state. Specifications are subject to change without notice.



G. Limited Warranty

The warranty period begins on the date the unit is purchased by the user. This warranty may not be transferred, sold, donated, gifted or assigned to a third party except with the prior written consent of **Finnmark Designs**, in its sole and absolute discretion. Absent written consent, only the original purchaser can make claims hereunder. All warranty labor must be performed by **Finnmark Designs** or its designated representative using authorized **Finnmark Designs** parts. No agent, dealer, distributor, service company or other party is authorized to change, modify, or extend the terms of this limited warranty in any manner whatsoever. Any warranty so provided shall be solely their separate obligation. As used in this warranty, "commercial use" shall mean any use that involves a fee, rate, charge, or other consideration, any use directly or indirectly in connection with a business, going concern, or undertaking intended for profit or pecuniary gain, and any non-residential use, "residential use" shall mean when purchased for use by a single-family for internal household purposes, and "user" shall mean the original purchaser.

The limited warranty does not cover defects, damage, or failure ("Damage") caused by the delivery service providers or common carrier, the installer, user, or other persons and animals, including without limitation, termites and other wood-destroying insects or rodents. The limited warranty excludes Damage resulting from transportation, careless handling, improper location, storage, or relocation, as well as from cleaning, painting, staining or other use of abrasive or improper chemicals. The limited warranty also excludes Damage arising from user's or a third party's negligence; modification of any type for any reason (including modification to meet local codes); improper installation (including installation not in accordance with instructions and specifications provided with the unit); connections supplied by the installer of the equipment, an electrician or a third party; improper voltage supply; unauthorized electrical modification; misuse; improper use; abuse; incorrect operation, lack of proper routine or preventive maintenance; unauthorized repair by a third-party; normal wear and tear; fire, and acts of God such as lightning, floods, earthquakes, etc. Outdoor-Use Sauna warranties do not include damage arising from a failure (i) to maintain the Sauna on a flat, level, hardtop surface with adequate drainage and (ii) to keep the exterior free and clear from plants, trees, grasses, soil, and snow deposits.



G. Limited Warranty

For your record, please complete the following information.
You will need to refer to this information when calling customer service:

Date of Purchase: _____ Date of Delivery: _____

Model Number: _____ Serial Number: _____

Dealer Information (Name & Telephone): _____

Phone #: (800) 983-0067

Email: saunas@finnmarkdesigns.com

finnmarkdesigns.com



(800) 983-0067 | finnmarkdesigns.com



Tempe, AZ

EMI Log

Customer: Finnmark Designs			Project Number: PR108242		
Test Item: Infrared Heaters			Log Start Date: 12/5/2019		
Model P/N: Spectrum +			Standard: Customer Email		
S/N:			Test: RF/Magnetic Field Survey (ICNIRP Occupational 2010 Test Limit)		
Temp: 22.1°C			Humidity: 44%		
Date	Start Time	Finish Time	NOTES	Result	Init
			Spectrum +		
12/5/19	1230		Ambient Position 1 (cables) Bandwidth @ 100Hz	Pass	JG
			Measured EMF: 0.5304mG @ 59.81Hz		
			Heater On Position 1 (cables) Bandwidth @ 100Hz	Pass	JG
			Measured EMF: 0.7328mG @ 60.06Hz		
			Heater On Position 1 (cables) Bandwidth @ 200Hz	Pass	JG
			Measured EMF: 0.7875mG @ 60.06Hz		
			Heater On Position 1 (cables) Bandwidth @ 3800Hz	Pass	JG
			Measured EMF: below 0.1mG		
			Heater On Position 2 Bandwidth @ 100Hz	Pass	JG
			Measured EMF: 0.6998mG @ 59.81Hz		
			Heater On Position 2 Bandwidth @ 200Hz	Pass	JG
			Measured EMF: 0.6881mG @ 60.06Hz		
			Heater On Position 2 Bandwidth @ 3800Hz	Pass	JG
			Measured EMF: below 0.1mG		
			Heater On Position 3 Bandwidth @ 100Hz	Pass	JG
			Measured EMF: ≈1mG @ ≈60Hz		
			Heater On Position 3 Bandwidth @ 200Hz	Pass	JG
			Measured EMF: 1.1708mG @ 60.06Hz		
12/5/19		1530	Heater On Position 3 Bandwidth @ 3800Hz	Pass	JG
			Measured EMF: below 0.1mG		

Test Personnel:

Customer Witness:



Tempe, AZ

EMI Log

Customer: Finnmark Designs			Project Number: PR108242		
Test Item: Infrared Heaters			Log Start Date: 12/6/2019		
Model P/N: Spectrum Carbon			Standard: Customer Email		
S/N:			Test: RF/Magnetic Field Survey (ICNIRP Occupational 2010 Test Limit)		
Temp: 20.4°C			Humidity: 45%		
Date	Start Time	Finish Time	NOTES	Result	Init
			Spectrum Carbon		
12/6/19	0630		Ambient Position 1 (cables) Bandwidth @ 100Hz Measured EMF: 0.4002mG @ 60.06Hz	Pass	JG
			Heater On Position 1 (cables) Bandwidth @ 100Hz Measured EMF: 0.4379mG @ 60.06Hz	Pass	JG
			Heater On Position 1 (cables) Bandwidth @ 200Hz Measured EMF: 0.4371mG @ 60.06Hz	Pass	JG
			Heater On Position 1 (cables) Bandwidth @ 3800Hz Measured EMF: below 0.1mG	Pass	JG
			Heater On Position 2 Bandwidth @ 100Hz Measured EMF: 0.5893mG @ 60.06Hz	Pass	JG
			Heater On Position 2 Bandwidth @ 200Hz Measured EMF: 0.4120mG @ 60.06Hz	Pass	JG
			Heater On Position 2 Bandwidth @ 3800Hz Measured EMF: below 0.1mG	Pass	JG
			Heater On Position 3 Bandwidth @ 100Hz Measured EMF: 0.4075mG @ 60.06Hz	Pass	JG
			Heater On Position 3 Bandwidth @ 200Hz Measured EMF: 0.4083mG @ 60.06Hz	Pass	JG
12/6/19		0900	Heater On Position 3 Bandwidth @ 3800Hz Measured EMF: below 0.1mG	Pass	JG

Test Personnel:

Customer Witness:

The heaters were tested in a controlled environment using a Narda EHP-50F Electric & Magnetic RF Analyzer to conduct the required measurements.

The heaters were tested in 3 different resolution bandwidths (100Hz, 200Hz, 3800Hz). The multiple bandwidths allowed for a more accurate reading below 200Hz of the 60Hz (and harmonics) signal(s). The scans were 1-100Hz, 1-200Hz, and 200-4000Hz. Please note, that the minimum operating frequency of the EHP-50F is 1Hz, therefore any “measurements” that appear below 1Hz are invalid.

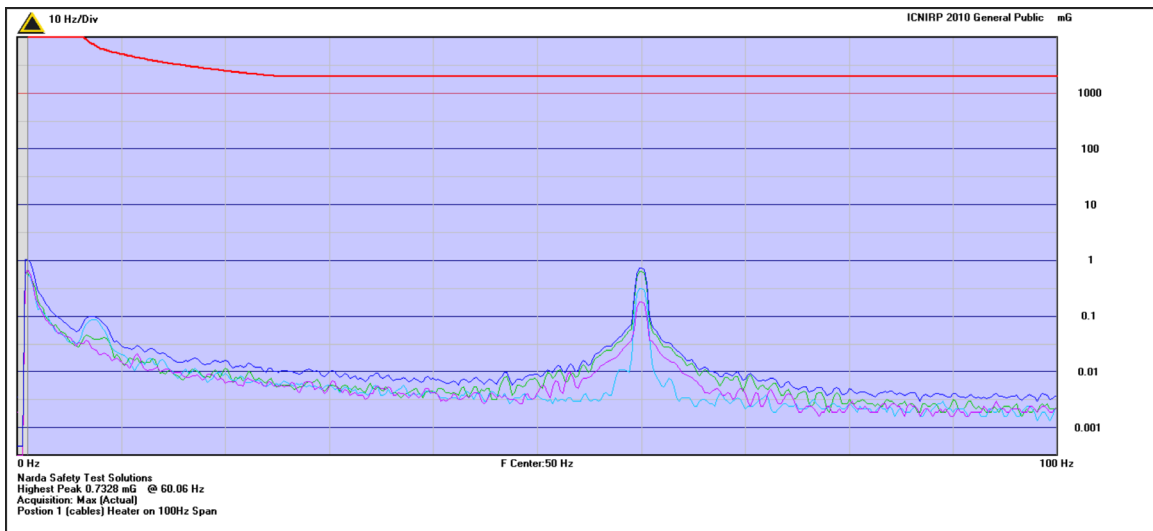
Each heater was measured at three different positions (see photos) for the frequency spans/scans listed above.

All measurements were plotted against the ICNIRP_Occupational_2010 Test Limit (see plots). The “highest” recorded measurement was Position 3 (200Hz Bandwidth) of the Spectrum + with a measured value of 1.1708mG.

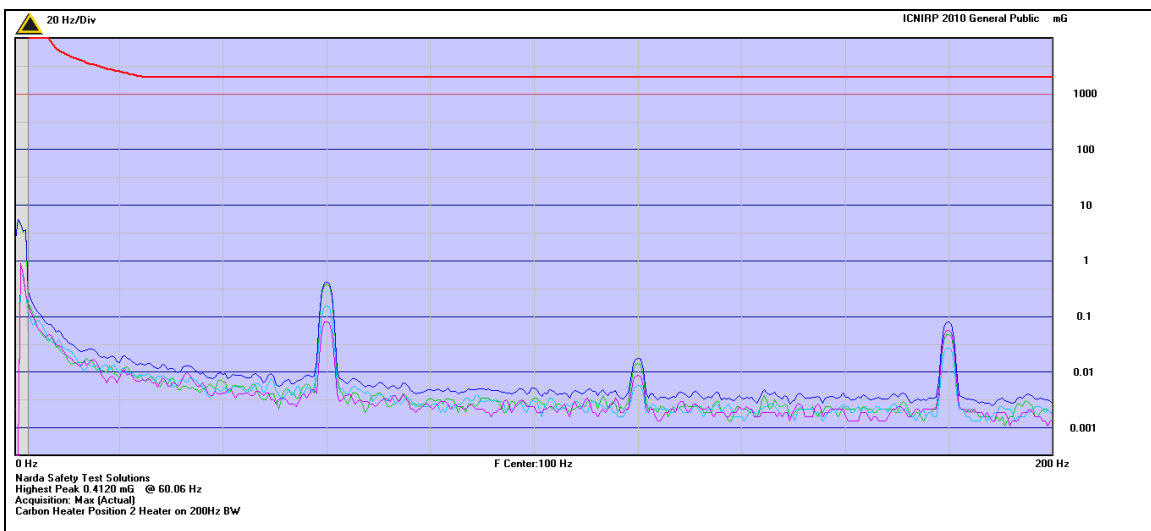
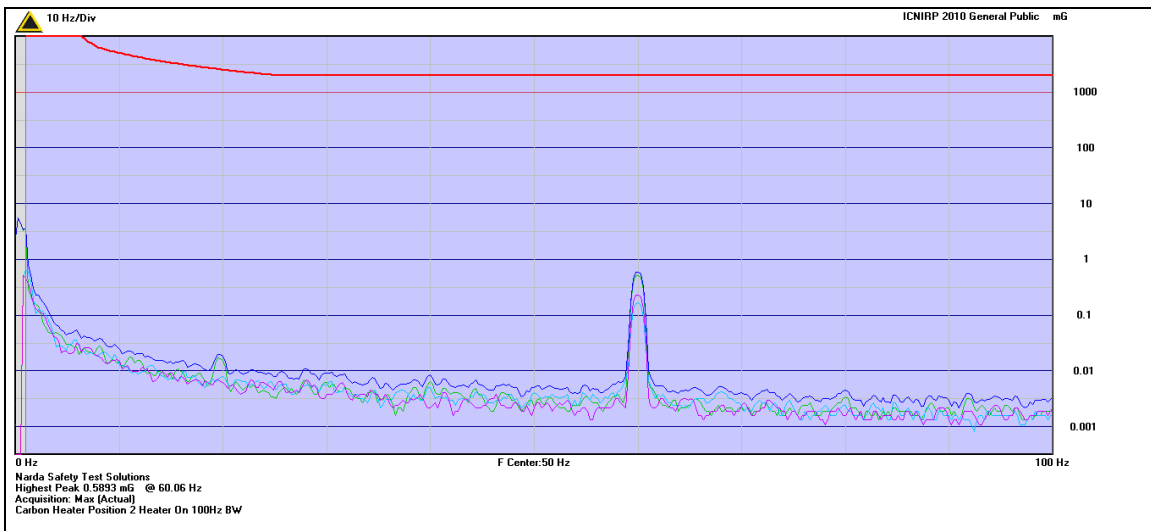
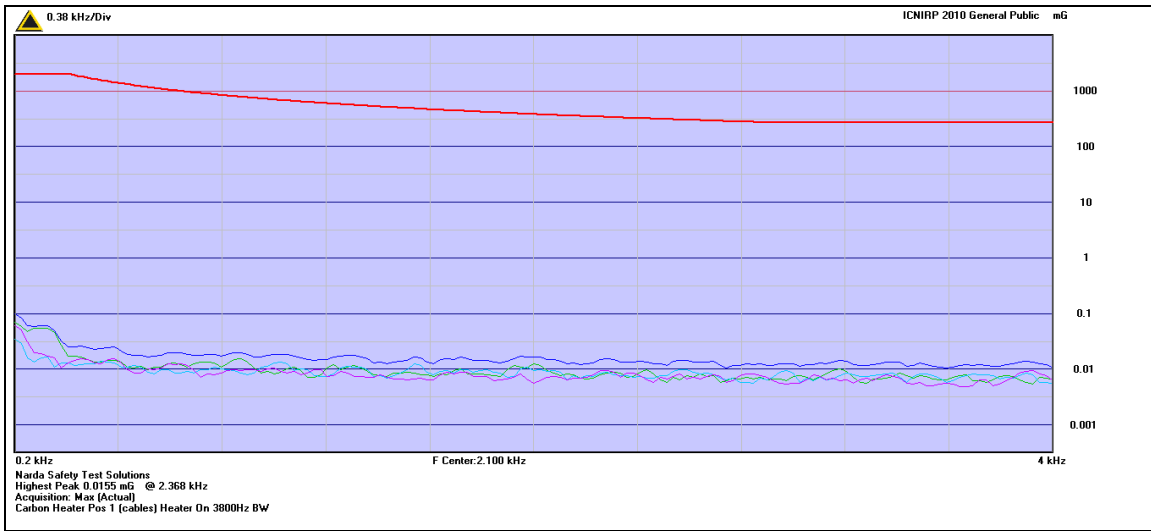
All of the measurements that were conducted/recorded were MAGNITUDES lower than the ICNIRP_Occupational_2010 Test Limit.

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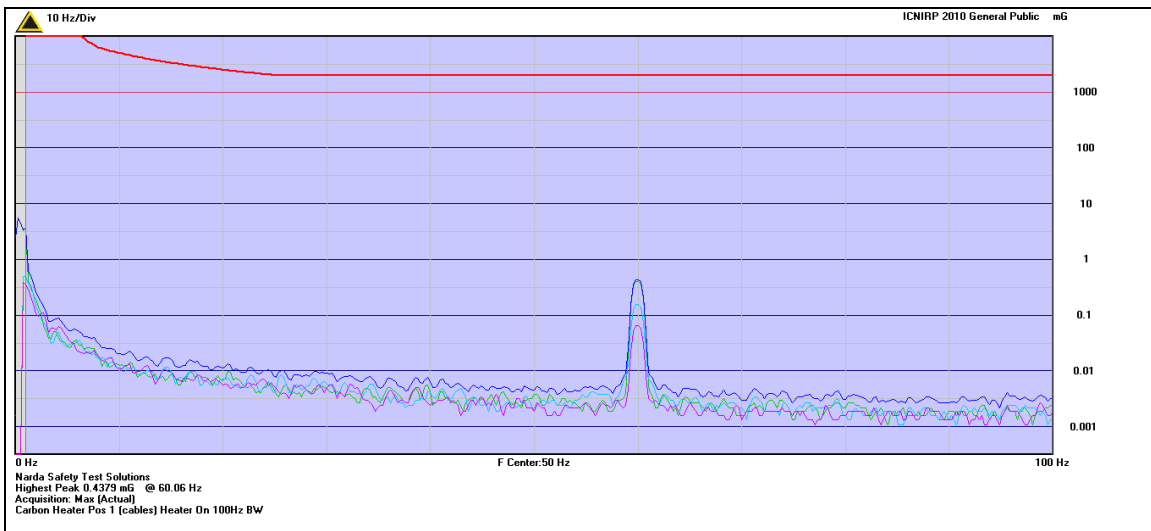
Customer: Finnmark Designs	Project Number: PR108242
Test Item: Infrared Heaters	Log Start Date: 12/5/2019
Model P/N: Spectrum +	Standard: Customer Email



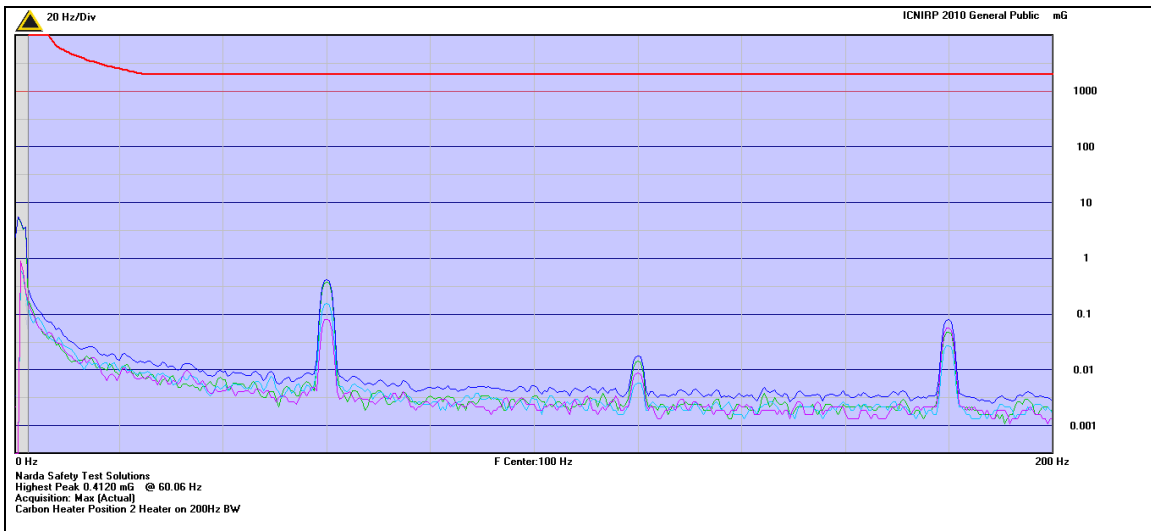
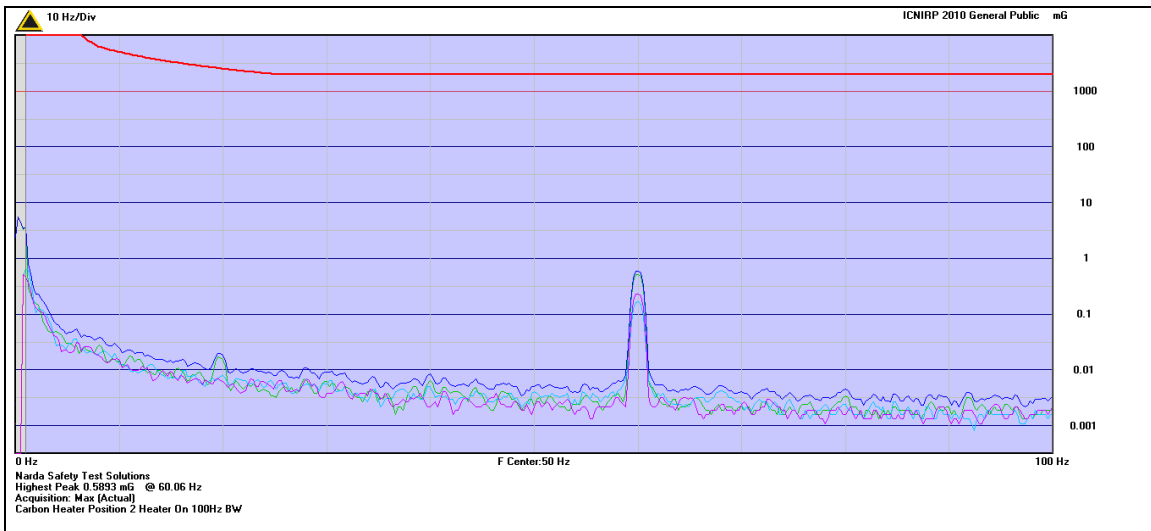
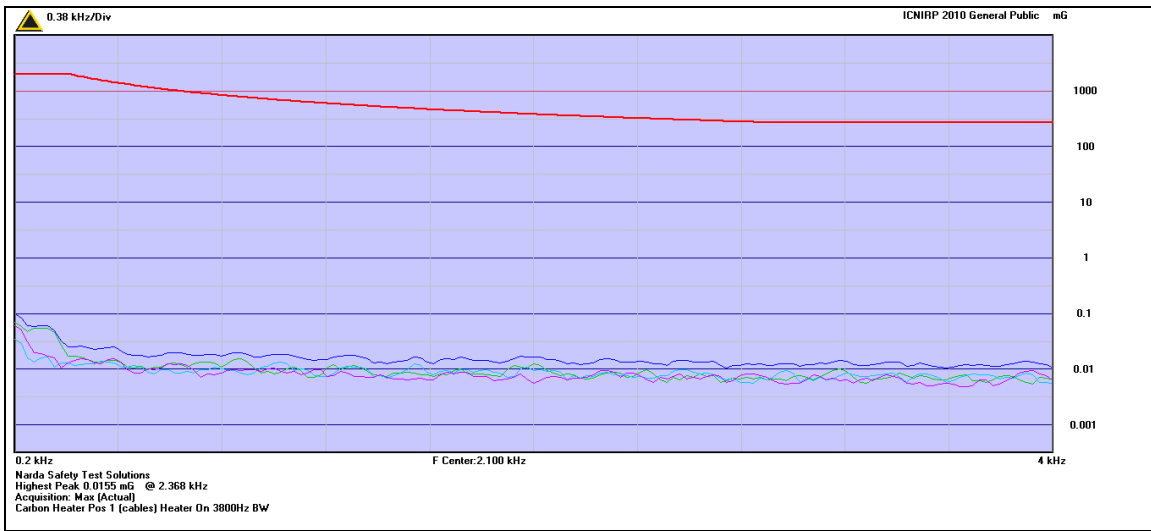
Continued



Customer: Finnmark Designs	Project Number: PR108242
Test Item: Infrared Heaters	Log Start Date: 12/5/2019
Model P/N: Spectrum Carbon	Standard: Customer Email



****Continued****





Our Warranty

Finnmark Designs warrants to the original purchaser (“you”) the following regarding your new sauna, when (a) is installed in accordance with installation instructions provided, (b) is properly and reasonably maintained, and (c) has not been subjected to damage, misuse, or abuse, and (d) is for residential use only.

We build saunas that **last longer than the competition.**

Using high quality materials coupled with state-of-the-art technology, our saunas outperform the competition.

Product Name	Indoor Residential	Outdoor Residential	Commercial	Price
Sauna Cabin (All Wood)	10 Years	5 Years	5 Years	Included
Non-Factory Installed Components	No Coverage	No Coverage	No Coverage	N/A
Controls and Power Supply	10 Years	5 Years	5 Years	Included
Spectrum Plus™ Heaters	Lifetime	Lifetime	Lifetime	Included
Spectrum Carbon Heaters	10 Years	10 Years	10 Years	Included
LED Lighting	10 Years	10 Years	10 Years	Included
Remotes	1 Year	1 Year	1 Year	Included
Cushion (Optional)	1 Year	1 Year	1 Year	Included
Outdoor Cover (Optional)	10 Years	10 Years	10 Years	Included

HARVIA

EN Owner's/Operator's Manual

FR Manuel de l'utilisateur/opérateur

Sauna heater installation, wiring, operating instructions, troubleshooting, maintenance and guarantee.

Instructions d'installation, de câblage et d'utilisation, dépannage, entretien et garantie du poêle de sauna.

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

IMPORTANT ! Ce manuel doit être remis au propriétaire, au gérant ou à l'opérateur du sauna après avoir été utilisé par l'électricien !

MODEL

HCBU1712241	1,7 kW
HCBU1912241	1,9 kW
HCBU352401	3,5 kW



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



Sauna Specialiste Inc.
1085 Desserte Nord Autoroute 440 Ouest
Laval, Quebec, H7L 3W3
Toll free: 1 (855) 689 2422

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3567 Jefferson St. N,
Lewisburg, WV 24901
+1 304-497-3991

EN

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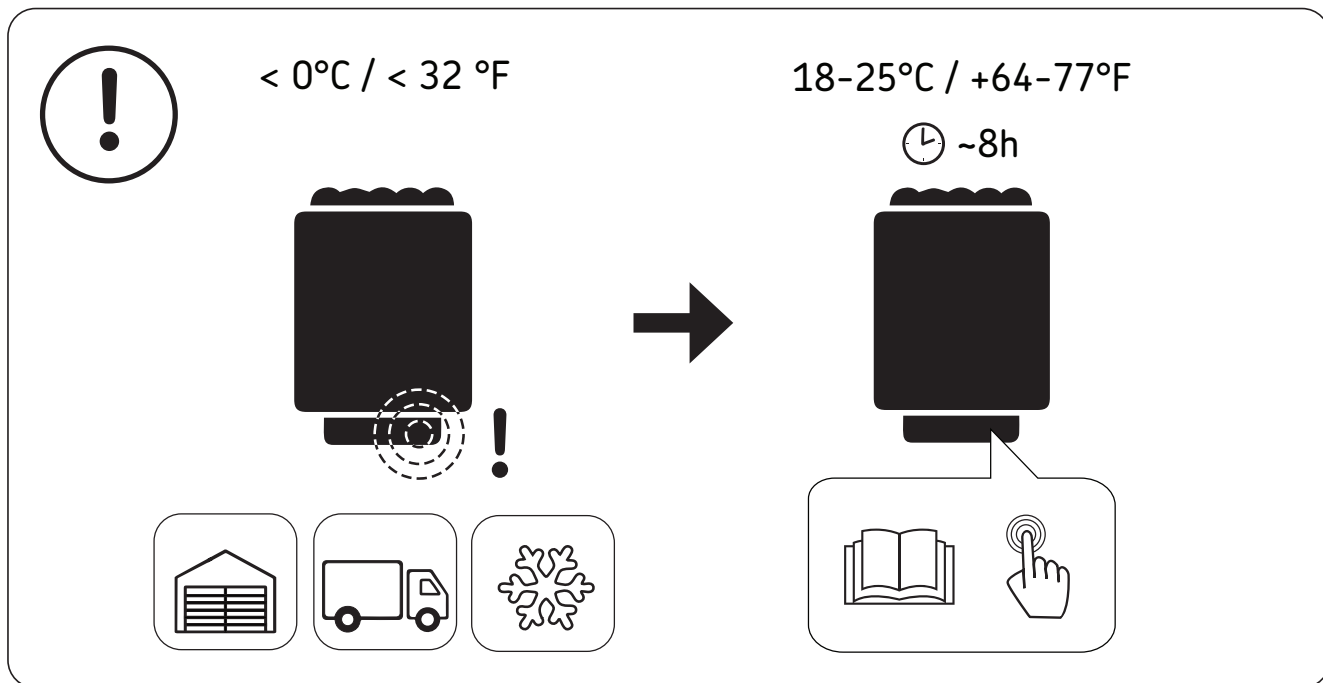
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! Overheat protector of the device can go off also at temperatures below -5°C / 23°F (storage, transport, environment). Before installation take the device to the warm environment. The overheat protector can be reset when the temperature of the device is approx 18°C / 64°F . The overheat protector must be reset before using the device. See the user manual > Resetting the Overheat Protector.

! La sécurité-surchauffe de l'appareil peut également se déclencher à des températures inférieures à -5°C / 23°F (stockage, transport, environnement). Avant l'installation, placez l'appareil dans un endroit chaud. La sécurité-surchauffe peut être réinitialisée quand la température de l'appareil se situe à env. 18°C / 64°F . La sécurité-surchauffe doit être réinitialisée avant d'utiliser cet appareil. Reportez-vous au manuel > Réinitialisation de la sécurité-surchauffe.

PLEASE READ THE INSTRUCTIONS FOR USE CAREFULLY BEFORE USING THE HEATER.



WARNINGS

- Keep away from the heater when it is hot. The stones and outer surface of the heater may burn your skin.
- Do not throw 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.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Consult your doctor about any health-related limitations to 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 smoke, use alcohol, or exercise in the sauna.
- Do not exceed 30 min. 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.
- Do not place any combustible material over the sauna heater (towels, bathing suits, wooden bucket or ladle)!
- 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:

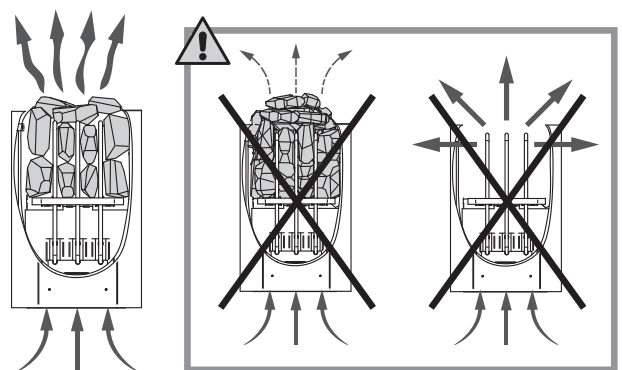
- Failure to perceive heat
- Failure to recognize the need to exit the room
- Unawareness of impending hazard
- Fetal damage in pregnant women
- Physical inability to exit the room
- Unconsciousness

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

- 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!
- Sea air and a humid climate may corrode the metal surfaces of the heater.
- No such objects or devices should be placed inside the heater rock 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!
- Do not operate heater without stones or if the stones has been piled incorrectly. Inadequately filled stone space causes fire risk.



Watch out for the hot surface!



Purpose of the electric heater:

The HCBU electric heater is intended for use in a well heat-insulated sauna. It is forbidden to use the heater for any other purposes.

The guarantee period of an HCBU electric heater in family use is one year and in communal use, 3 months. 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.

1. INSTRUCTIONS FOR USE

1.1. Piling of the Sauna Stones


The piling of the sauna stones has a great effect on both the safety and the heating capability of the heater.

Important information on sauna stones:

- The stones should be 2-4'' (5-10 cm) in diameter.
- Use solely angular split-face sauna stones that are intended for use in a heater. Peridotite, olivine-dolerite and olivine are suitable stone types.
- Neither light, porous ceramic "stones" nor soft soapstones should be used in the heater. They do not absorb enough heat when warmed up. This can result in damage to heating elements.
- **Wash off dust from the stones before piling them into the heater.**

Please note when placing the stones:

- Do not drop stones into the heater.
- Do not wedge stones between the heating elements.
- Pile the stones so that they support each other instead of lying their weight on the heating elements.
- Support the heating elements with stones so that the elements stay vertically straight.
- Do not form a high pile of stones on top of the heater.
- 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.

 A bare heating element can endanger combustible materials even outside the safety distances. Check that no heating elements can be seen behind the stones.

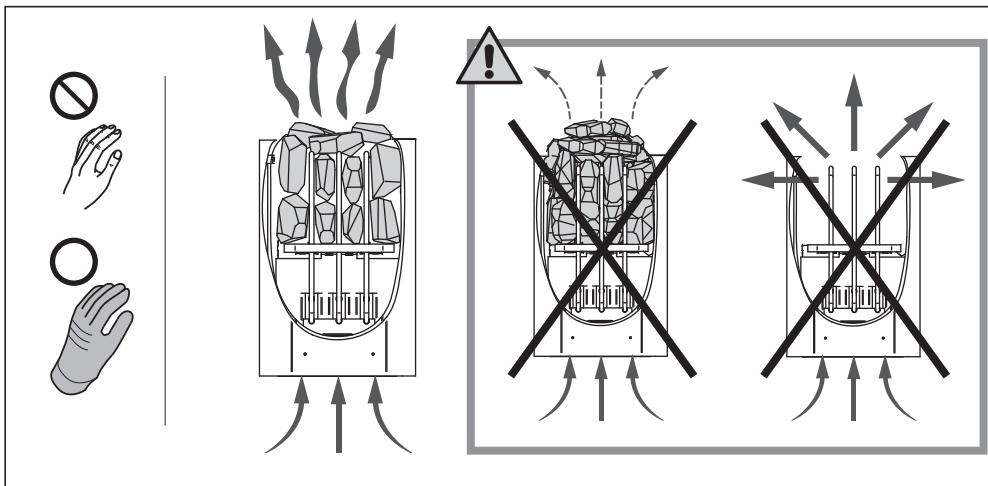


Figure 1. Piling of the sauna stones

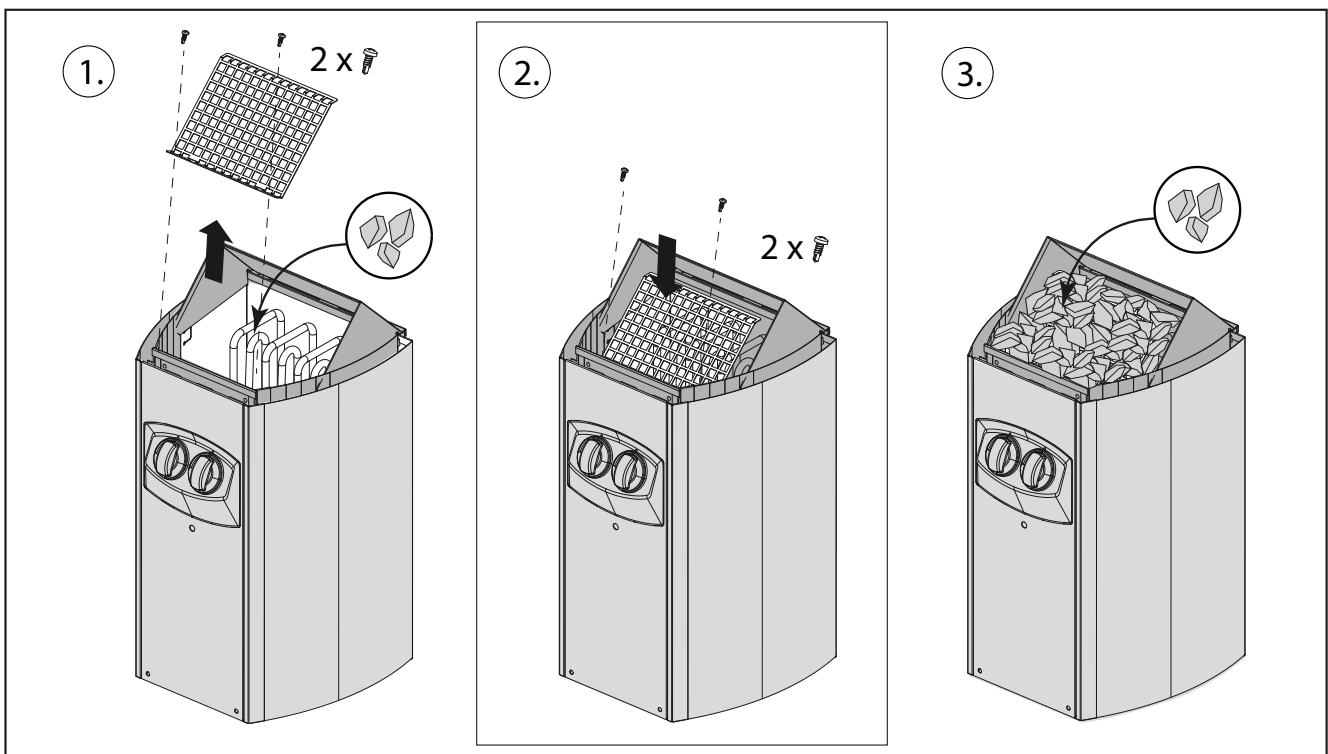


Figure 2. Installing the safety grid and piling of the sauna stones

Water properties	Effect	Recommendation
Humus concentration	Colour, taste, precipitates	< 12 mg/l
Iron concentration	Colour, odour, taste, precipitates	< 0,2 mg/l
Manganese (Mn) concentration	Colour, odour, taste, precipitates	< 0,10 mg/l
Hardness: most important substances are magnesium (Mg) and lime, i.e. calcium (Ca)	Precipitates	Mg: < 100 mg/l Ca: < 100 mg/l
Chloride-containing water	Corrosion	Cl: < 100 mg/l
Chlorinated water	Health risk	Forbidden to use
Seawater	Rapid corrosion	Forbidden to use
Arsenic and radon concentration	Health risk	Forbidden to use

Table 1. Water quality requirements

1.1.1. Maintenance

Due to large variation in temperature, the sauna stones disintegrate in use.

Rearrange the stones at least once a year or even more often if the sauna is in frequent use. At the same time, remove any pieces of stones from the bottom of the heater and replace any disintegrated stones with new ones. By doing this, the heating capability of the heater stays optimal and the risk of overheating is avoided.

⚠ Pay attention especially to the gradual settling of the stones. Be sure that the heating elements do not appear with time. The stones settle most rapidly within the first two months of piling.

1.2. Heating of the Sauna

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


If the heater output is suitable for the sauna room, it will take about an half an hour for a properly insulated sauna to reach the required bathing temperature (▷2.3.). The sauna stones normally reach the bathing temperature at the same time as the sauna room. A suitable temperature for the sauna room is about 149–167 °F (65–75 °C).

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


1.3. Using the Heater

Heater models are equipped with a timer and a thermostat. The timer is for setting the on-time for the heater (60 minutes) and the thermostat is for setting a suitable temperature. ▷1.3.1.–1.3.3.

1.3.1. Heater On

 Turn the timer switch (section A in figure 3) from OFF to 1h. The heater starts heating immediately. Allow at least 30 minutes for sauna room to heat up to an average Sauna temperature.

1.3.2. Heater Off

 The heater switches off, when the timer turns the switch back to OFF. You can switch the heater off at any time by turning the timer switch to OFF yourself.

Switch the heater off after bathing. Sometimes it may be advisable to leave the heater on for a while to let the wooden parts of the sauna dry properly.

⚠ Always check that the heater has switched off and stopped heating after the timer has turned the switch to OFF.

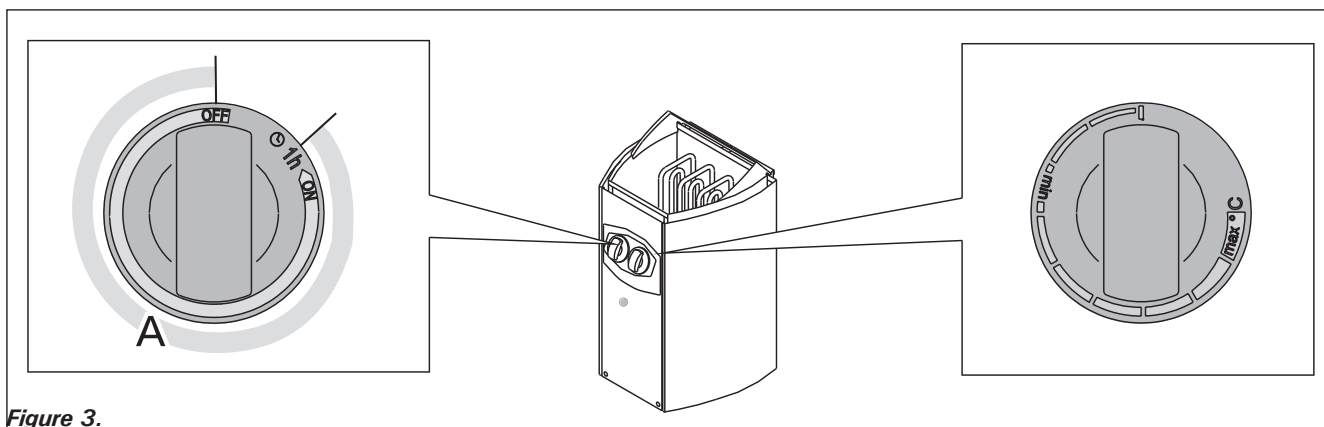


Figure 3.

1.3.3. Setting the Temperature


The purpose of the thermostat (figure 3) is to keep the temperature in the sauna room on a desired level. By experimenting, you can find the setting that suits you best.

Begin experimenting at the maximum position. If, during bathing, the temperature rises too high, turn the switch counter-clockwise a little. Note that even a small difference within the maximum section will change the temperature of the sauna considerably.

1.4. Throwing Water on Heated Stones

The air in the sauna room becomes dry when warmed up. Therefore, it is necessary to throw water on the heated stones to reach a suitable level of humidity in the sauna. The effect of heat and steam on people varies – by experimenting, you can find the levels of temperature and humidity that suit you best.

You can adjust the nature of the heat from soft to sharp by throwing water either to the front of the heater or straight on top of the stones.


 **The maximum volume of the ladle is 0,05 gal (0.2 litres). 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 throw water on the stones when there are people near the heater, because hot steam may burn their skin.**

The water to be thrown on the heated stones should meet the requirements of clean household water (table 1). Only special aromas designed for sauna water may be used. Follow the instructions given on the package.

1.5. Instructions for Bathing

- Begin by washing yourself.
- Stay in the sauna for as long as you feel comfortable.
- Forget all your troubles and relax.
- 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 throwing excessive amounts of water on the stones.
- 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 after bathing.
- Rest for a while and let your pulse go back to normal. Have a drink of fresh water or a soft drink to bring your fluid balance back to normal.

1.6. Troubleshooting

 **All service operations must be done by professional licensed maintenance personnel.**

The heater does not heat.

- Check that the breakers to the heater are in good condition.
- Check that the connection cable is connected.
- Check that the control panel shows a higher figure than the temperature of the sauna.
- Check that the overheat protectors have not gone off. See figure 8.
- Check that the breaker is switched on. Also, breaker should be correct size.

The sauna room heats slowly. The water thrown on the sauna stones cools down the stones quickly.

- Check that the breakers to the heater are in good condition.
- Check that all heating elements glow when the heater is on.
- Turn the temperature to a higher setting.
- Check that the heater output is sufficient (▷ 2.3.).
- Check that the sauna room ventilation has been arranged correctly (▷ 2.4.).

The sauna room heats quickly, but the temperature of the stones remain insufficient.

Water thrown on the stones runs through.

- Check that the heater output is not too high (▷ 2.3.).
- Check that the sauna room ventilation has been arranged correctly (▷ 2.4.).

Panel or other material near the heater darkens quickly.

- Check that the requirements for safety distances are fulfilled (▷ 3.2.).
- Check the sauna stones (▷ 1.1.). Too tightly piled stones, the settling of stones with time or wrong stone type can hinder the air flow through the heater, which may result in overheating of surrounding materials.
- Check that no heating elements can be seen behind the stones. If heating elements can be seen, rearrange the stones so that the heating elements are covered completely (▷ 1.1.).
- Also see section 2.1.2.

The heater emits smell.

- See section 1.2.
- The hot heater may emphasize odours mixed in the air that are not, however, caused by the sauna or the heater. Examples: paint, glue, oil, seasoning.

The heater makes noise.

- Occasional bangs are most likely caused by stones cracking due to heat.
- The thermal expansion of heater parts can cause noises when the heater warms up.

2. THE SAUNA ROOM

2.1. Insulation and Wall Materials of the Sauna Room

In an electrically heated sauna, all the massive wall surfaces which store plenty of heat (such as bricks, glass blocks, plaster etc.), must be sufficiently insulated in order to keep the heater output at a reasonably low level.

A wall and ceiling construction can be considered to have efficient thermal insulation if:

- the thickness of carefully fitted insulating wool inside the structure is 4" (100 mm) minimum 2" (50 mm).
- the moisture protection consists of e.g. aluminium paper with tightly taped edges. The paper must be fitted so that the glossy side is towards the inside of the sauna.
- there is a 1/4" (10 mm) vent gap between the moisture protection and panel boards (recommendation).
- the inside is covered by 1/2" – 5/8" (12–16 mm) thick panelling.
- there is a vent gap of a few millimetres at the top of the wall covering at the edge of the ceiling panelling.

When aiming at a reasonable heater output, it may be advisable to lower the ceiling of the sauna, (minimum height 75" (1900 mm)). As a result, the volume of the sauna is decreased, and a smaller heater output may be sufficient. The ceiling can be lowered so that the ceiling joists are fixed at a suitable height. The spaces between the joists are insulated (minimum insulation 4" (100 mm)) and surfaced as described above.

Because heat goes upwards, a maximum distance of 47" (1200 mm) is recommended between the bench and ceiling.

NOTE! The protection of the walls or ceiling with heat protection, such as mineral board fitted directly on the wall or ceiling, may cause the temperature of the wall and ceiling materials to rise dangerously high.

2.1.1. Room construction – general information

FRAMING

2" x 4" (50 x 100 mm) any suitable wood material, 16" (406 mm) o.c.

CEILING HEIGHT

No higher than 7' 6" (2300 mm).

INSULATION

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

DRYWALL

See local codes. Is not required in most residences. See local codes for commercial. If drywall is used apply 1" x 2" (25 x 50 mm) nailers so that wall and ceiling boards can be attached to solid wood.

PANELING

Use kiln-dried softwood (with moisture content not exceeding 11 %).

BENCHES

Use matching softwood. Fasten from bottom to prevent burning of bathers.

DOOR

Must open out and should not have a lock. Types of door fastenings that may be used are magnetic catches, friction catches, spring-loaded or gravity loaded door closers, and the like.

ROOM LIGHT

Should be a vapor proof, wall mounted type, with rough-in box mounted flush with inside paneling. It should be mounted 6" (150 mm) from ceiling, not directly over the sauna heater, and not over upper benches. It could be installed under benches. Light bulb should not exceed recommended watts of the light manufacturer.

Note! Receptacles OR PLUGS are not allowed in a Sauna room. If a speaker is installed in a Sauna room, it should not be installed higher than 3' (914 mm) from floor, away from the Sauna heater (consult manufacturer for ratings).

2.1.2. Darkening of the Sauna Walls

It is perfectly normal for the wooden surfaces of the sauna room to darken in time. The darkening may be accelerated by

- sunlight
- heat from the heater
- protective agents on the walls (protective agents have a poor heat resistance level)

2.2. Sauna Room Floor

Due to a large variation in temperature, the sauna stones disintegrate in use.

Small pieces of stone are washed down on the sauna room floor along with the water thrown on the rocks.

To prevent aesthetic damage only dark joint grouts and floor coverings made of rock materials should be used underneath and near the heater.

2.3. Heater Output

When the walls and ceiling are covered with panels, and the insulation behind the panels is sufficient to prevent thermal flow into the wall materials, the heater output is defined according to the cubic volume of the sauna. See table 2.

Because log walls are heated slowly, the cubic volume of a log sauna should be multiplied by 1.5, and the heater output should then be selected on the basis of this information.

2.4. Sauna Room Ventilation

Should be provided by lower vent close to heater, 4" (100 mm) from floor, and upper vent on opposite wall (if possible) 6" (150 mm) from ceiling or as low as 24" (600 mm) from floor. Vents should be adjustable and should allow air to change 5 times per hour. Sauna shall be provided with intended ventilation as required per the local code authorities. See figure 4.

2.5. Hygienic Conditions of the Sauna Room

Good hygienic standards of the sauna room will make bathing a pleasant experience.

The use of sauna seat towels is recommended to prevent sweat from flowing onto the platforms. The towels should be washed after each use. Separate towels should be provided for guests.

It is advisable to vacuum or sweep the floor of the sauna room in connection with cleaning. In addition, the floor may be wiped with a damp cloth.

The sauna room should be thoroughly washed at least every six months. Brush the walls, platforms and floor by using a scrubbing-brush and sauna cleanser. Then rinse the saunarium by using clean household water. Remove lime stains from the heater using a 10% citric acid solution and rinse.

Wipe dust and dirt from the heater with a damp cloth.

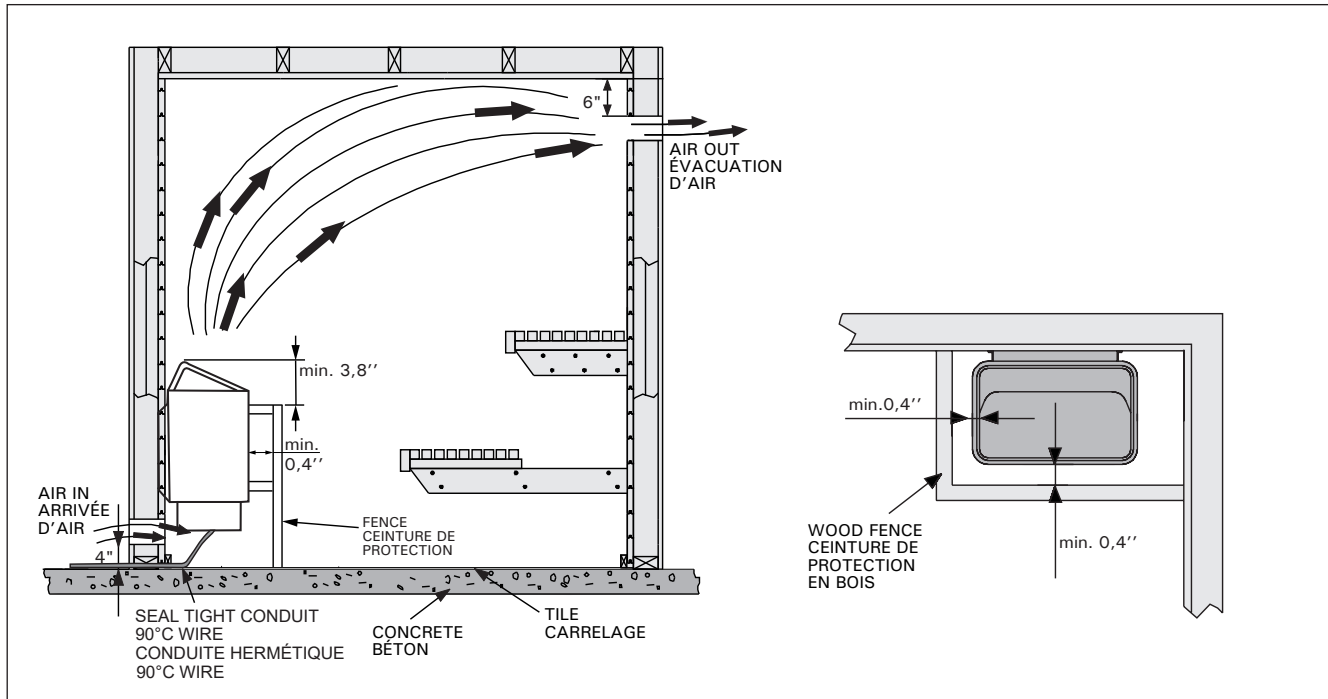


Figure 4. Ventilation of the sauna room and min. clearances from fence

3. INSTRUCTIONS FOR INSTALLATION

3.1. Prior to Installation

Prior to installing the heater, read all the instructions for installation (figure 7), as well as checking the following points:

- The heater volume should be suitable for the sauna room volume. Table 2 shows the minimum and maximum volumes for each heater output. A precondition for the given values is that the sauna room is well heatinsulated. Walls and ceiling are covered with wood panel.
- Check that supply voltage and amperages are available for the heater.
- The breakers and the connection cables conform with valid regulations and their dimensions are in accordance with table 3.
- The location is suitable for the heater (▷3.2.).
- ▷3.7. Resetting the Overheat Protector

3.2. Place and Safety Distances

The minimum safety distances are described in figure 4 and 5.

- **It is absolutely necessary to install the heater according to these values. Neglecting them causes a risk of fire.** (▷3.6.)
- **Hot pieces of stone can damage floor coverings and cause a risk of fire.** The floor coverings of the installation place should be heat-resistant.

3.3. Heater fence

It is necessary for safety and should be constructed of softwood to match sauna interior. See figures 4 and 5 for clearances from sauna heater. Fence should be attached to wall and should not be placed higher than top of heater below rock line.

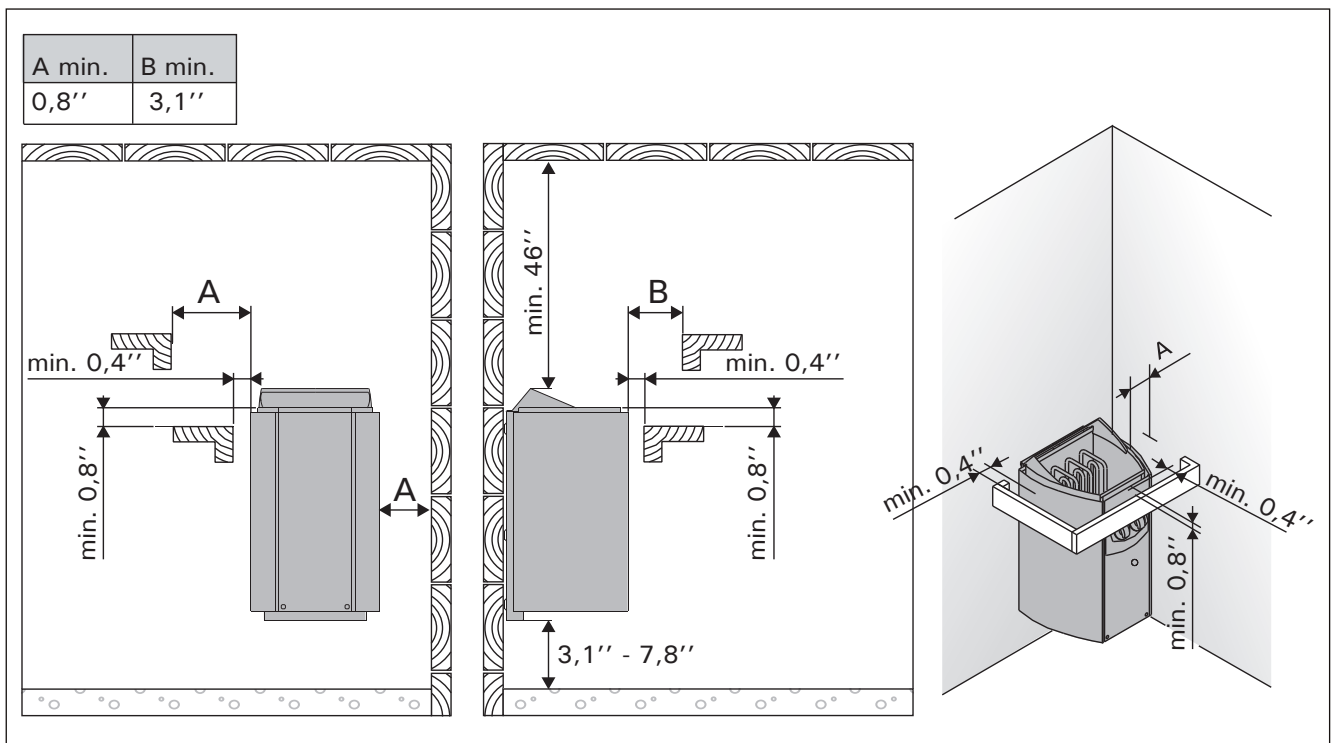


Figure 5. Minimum safety distances

Heater	Output	Dimensions		Stones		Sauna room									
		Width/Depth/Height				Weight		Cubic vol.		Floor Area		Height			
	kW	inch	mm	lb/kg	max. lb/kg	▷2.3.!		min. CuFt/m³	max. CuFt/m³	min sqft	max sqft	min. inch/mm			
HCBU1712241	1,7	11/11/21	280/280/535	15,4	7	28,5	13	70,5	2	106	3	11,3	17	75	1900
HCBU1912241	1,9	11/11/21	280/280/535	15,4	7	28,5	13	70,5	2	106	3	11,3	17	75	1900
HCBU352401	3,5	11/11/21	280/280/535	16,1	7,3	28,5	13	70,5	2	175	5	11,3	28	75	1900

Table 2. Installation details of the heater

3.4. Electrical Connections

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

The heater must be connected with a fixed all poles disconnection device, that provides full disconnection under overvoltage category III conditions. The connection must be made according to current local and general regulations.

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 4 and 5. After final hookup, electrical contractor should secure heater to the floor or on the wall with required screws or bolts.
2. See applicable wiring diagram for heater model (figure 6). Heater must be permanently installed by using seal tight conduit between the heater and the wall of the sauna room (pigtails or plugs are not allowed in the sauna room). Wiring must be done by a licensed electrician, who must follow wiring diagram provided and adhere to local codes. Use proper AWG rated wire size and use copper wire suitable for 194 °F (90 °C) within sauna walls. Use grounding terminals provided in sauna heater 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 (screws and nails included). Place the metal "WARNING" sign outside, on the door of the sauna room. "MAINTENANCE INSTRUCTIONS" are at the end of this manual.

3.5. Installing the Heater

See figure 7.

1. Fasten the wall-mounting rack on the wall by using the screws which come with the rack.
NOTE! There must be a support, e.g. a board, behind the panel, so that the fastening screws can be screwed into a thicker wooden material than the panel. If there are no boards behind the panel, the boards can also be fastened on the panel.
2. Make sure the clip fastens in the hole properly.
3. Lift the heater to the rack on the wall so that the fastening hooks of the lower part of the rack go behind the edge of the heater body. Lock the edge of the heater onto the rack by a screw.

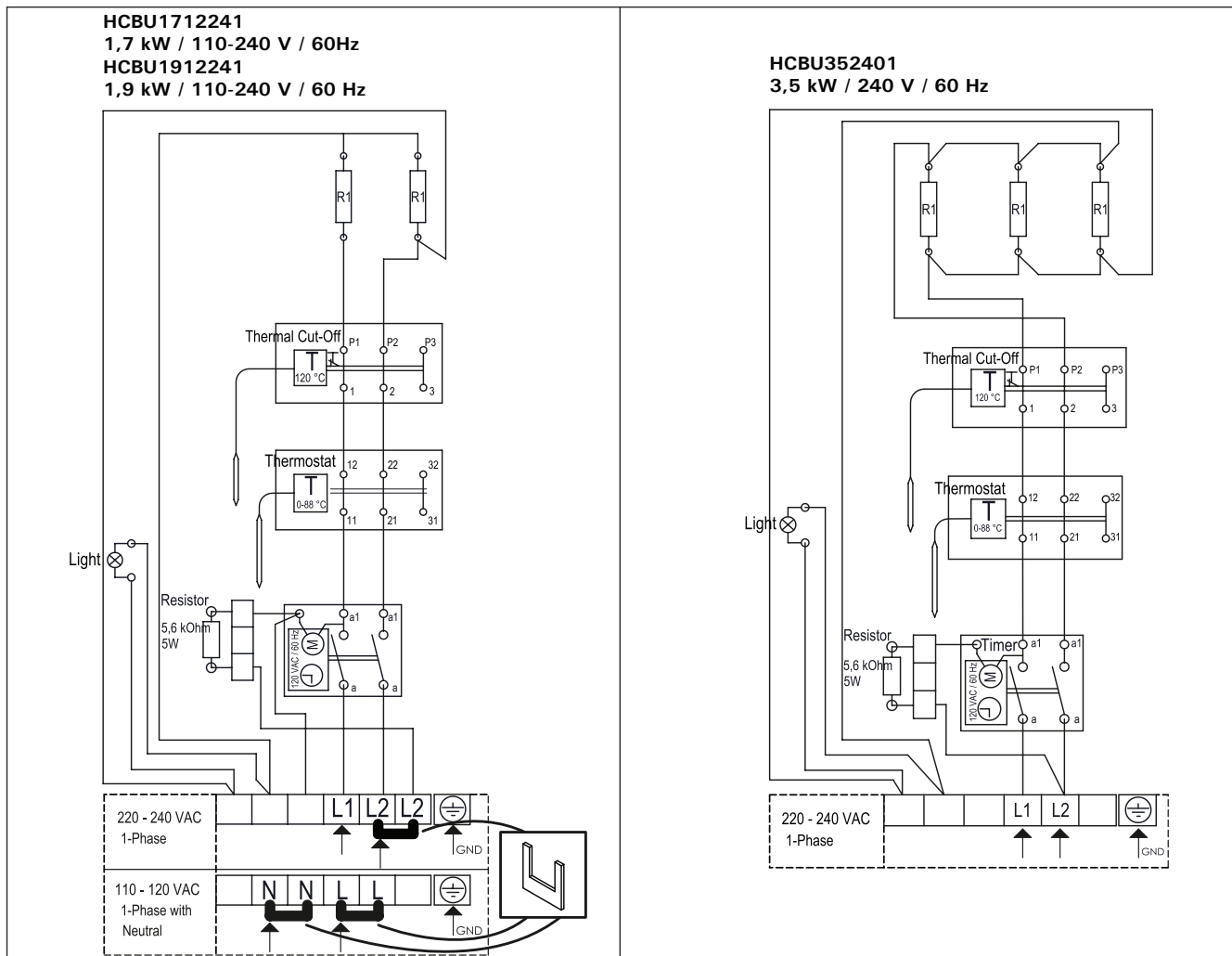


Figure 6. Electrical connections of the heater

Heater model	Input kW	Voltage V	Ph	Frequency Hz	Amperage A		Min. 90 °C Copper supply wire AWG No.	
					120 V	240 V	120 V	240 V
HCBU1712241	1,7	120/240	1	60	14,2	7,1	14	14
HCBU1912241	1,9	120/240	1	60	15,9	8	14	14
HCBU352401	3,5	240	1	60	-	14,4	-	14

Table 3. Supply wires

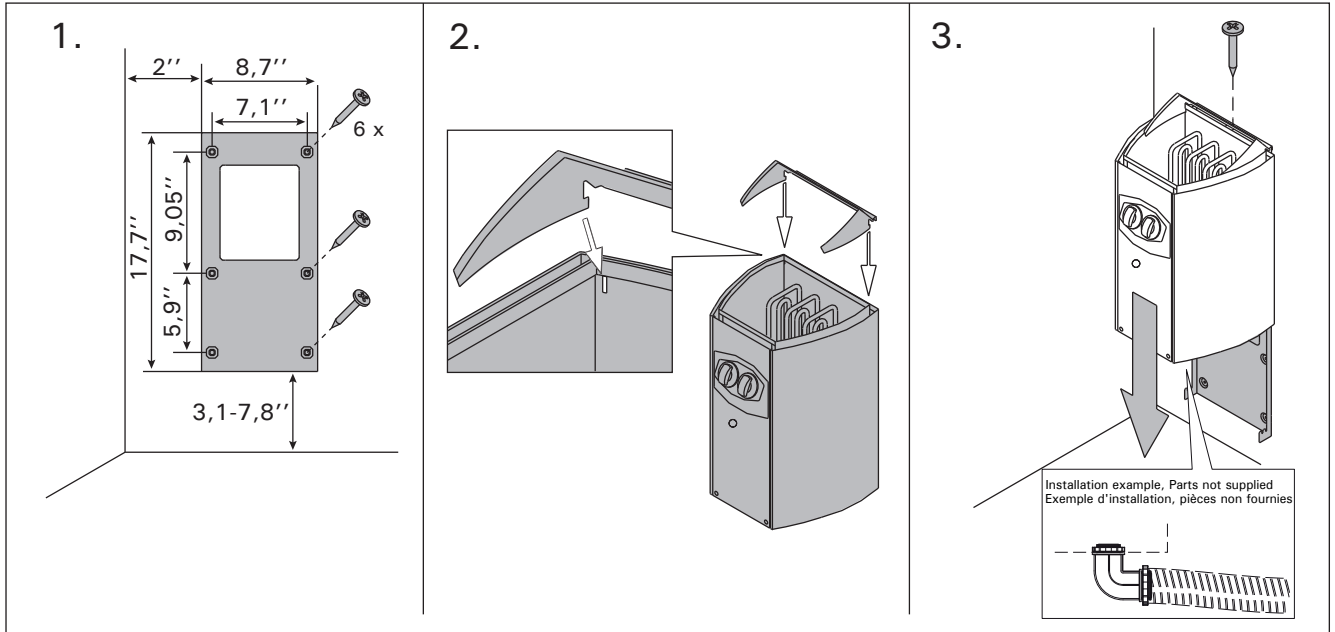


Figure 7. Installing the wall-mounting device (1.) and the heater (2.-3.)

3.6. Electric heater insulation resistance

When performing the final inspection of the electrical installations, a "leakage" may be detected when measuring the heater's insulation resistance. The reason for this is that the insulating material of the heating resistors has absorbed moisture from the air (storage, transport). After operating the heater for a few times, the moisture will be removed from the resistors.

Do not connect the power feed for the heater through the RCD (residual current device)/GFI (Ground Fault Interrupter)!

3.7. Resetting the Overheat Protector

If the temperature of the sauna room becomes dangerously high, the overheat protector will permanently cut off the supply of the heater. The overheating protector can be reset after the heater has cooled down. See figure 8. Please check that the stones are piled properly.

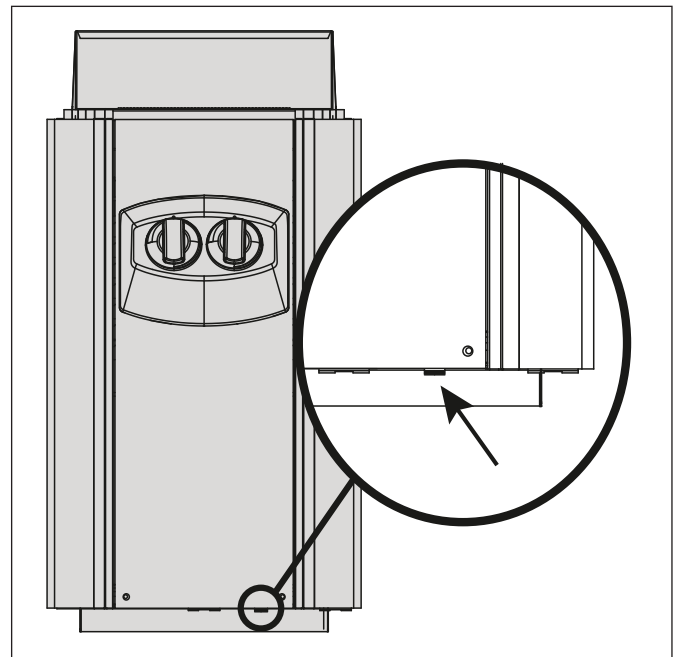
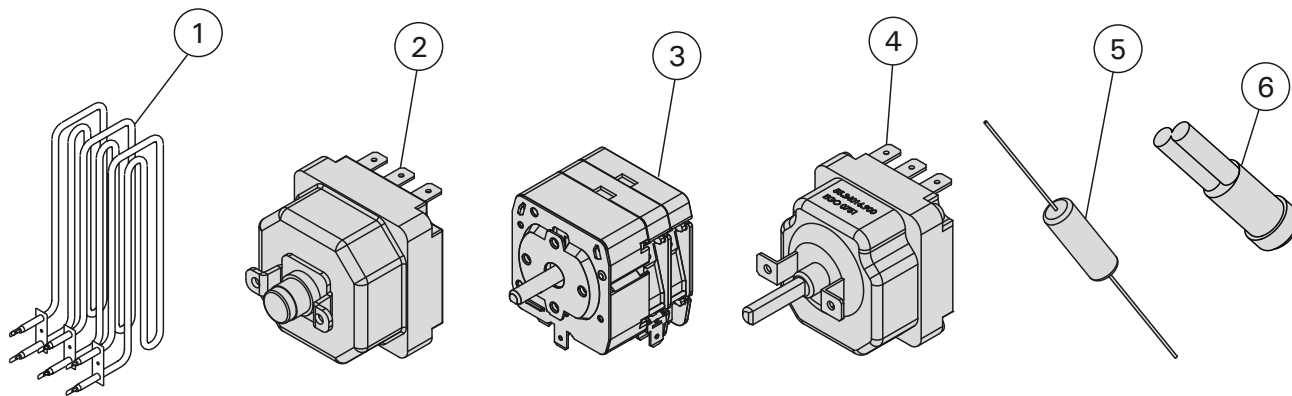


Figure 8. Reset button for overheat protector

! Overheat protector of the device can go off also at temperatures below -5°C / 23°F (storage, transport, environment). Before installation take the device to the warm environment. The overheat protector can be reset when the temperature of the device is approx 18°C / 64°F . The overheat protector must be reset before using the device.

4. SPARE PARTS



Use only parts approved by the manufacturer!

1	Heating element 850 W / 120 V Heating element 950 W / 120 V Heating element 1150 W / 240 V	ZSB-774 ZSB-772 ZSB-773	HCBU1712241 HCBU1912241 HCBU352401	2 2 3
2	Overheat protector	ZSV-330		1
3	Timer	Y07-0018		1
4	Thermostat	ZSK-762		1
5	Wirewound resistor 5,6kOhm / 5W	Y07-0017		1
6	Lamp	ZSI-240		1

LIRE ATTENTIVEMENT LES CONSIGNES D'UTILISATION AVANT LA MISE EN SERVICE DE L'APPAREIL.



Avertissements

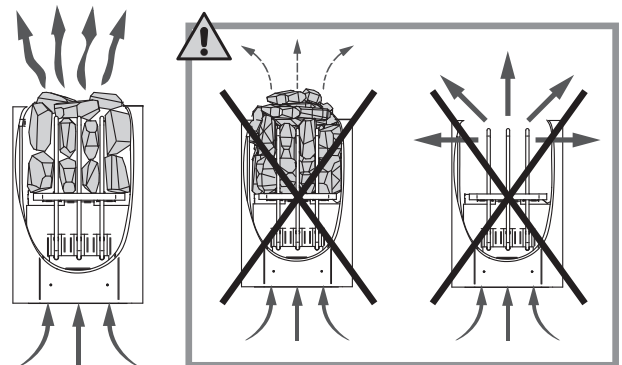
- Ne pas utiliser le sauna pour y faire sécher du linge sous peine de provoquer un incendie ou d'endommager les pièces électriques en raison de l'humidité excessive.
- Se tenir éloigné des pierres et des parties métalliques du poêle. Elles risquent de provoquer des brûlures.
- Ne pas projeter trop d'eau à la fois sur les pierres: la vapeur produite au contact des pierres est brûlante.
- Cet appareil n'est pas destiné à être utilisé par des personnes (y compris les enfants) ayant des handicaps physiques, sensoriels ou mentaux, ou un manque d'expérience, à moins qu'ils n'aient été informés de la manière d'utiliser l'appareil par une personne responsable de leur sécurité. Les enfants doivent être surveillés afin de s'assurer qu'ils ne jouent pas avec l'appareil.
- Les enfants, les handicapés et les personnes affaiblies ou en mauvaise santé doivent être accompagnés lors des séances de sauna.
- Les parents doivent veiller à ce que les enfants ne s'approchent pas trop près du poêle.
- Discuter avec un pédiatre de la participation éventuelle d'enfants en bas âge aux séances de sauna (âge, température du sauna, durée des séances ?)
- Toujours se déplacer avec la plus grande prudence, les bancs et le sol pouvant être glissants.
- Ne pas fumer, consommer d'alcool ou faire de l'exercice dans le sauna.
- Ne pas passer plus de 30 min de suite dans le sauna car une exposition excessive peut nuire à la santé. Le sauna ne doit pas être utilisé comme test d'endurance !
- Les personnes en mauvaise santé doivent consulter leur médecin avant d'utiliser le sauna !
- Ne pas placer de matériau combustible au-dessus du poêle (serviettes, maillots de bain, seau ou louche en bois) !
- L'hyperthermie se produit lorsque la température interne du corps dépasse de plusieurs degrés la température normale du corps (98,6 °F). Les symptômes d'hyperthermie incluent une hausse de la température interne du corps, des vertiges, la léthargie, la somnolence et l'évanouissement.

Les effets de l'hyperthermie incluent :

- A) l'insensibilité à la chaleur ;
- B) l'indifférence au besoin de sortir de la cabine ;
- C) l'inconscience du danger imminent ;
- D) des lésions fatales chez les femmes enceintes ;
- E) l'incapacité physique à sortir de la cabine ;
- F) la perte de connaissance.

AVERTISSEMENT : La consommation d'alcool, de drogues ou de médicaments peut augmenter considérablement le risque d'hyperthermie mortelle.

- Utiliser uniquement de l'eau propre du robinet sur les pierres. Ne pas utiliser d'eau de piscine ou de spa car cela risquerait de dégager du chlore et d'endommager les résistances !
- L'air marin et humide est susceptible d'avoir une action corrosive sur les surfaces métalliques.
- En aucun cas ne placer dans le compartiment réservé aux pierres ou même à proximité immédiate, des objets et des appareils qui pourraient modifier la quantité et la direction de l'air circulant à travers le poêle, ceci pourrait causer un échauffement excessif des résistances et entraîner un risque d'incendie sur les parois du sauna!
- Ne pas utiliser le poêle sans pierres ou si les pierres ont été empilées de façon incorrecte. S'il est mal rempli, le compartiment à pierres risque de provoquer des incendies.



Attention aux surfaces chaudes !

Fonction du poêle électrique :

Le poêle électrique HCBU est destiné à être utilisé dans un sauna bien isolé contre la chaleur. Il est interdit d'utiliser le poêle à toute autre fin.

La période de garantie d'un poêle électrique HCBU est d'un an pour une utilisation familiale et de 3 mois pour une utilisation communautaire.

Veuillez lire attentivement les instructions avant d'utiliser le poêle.

IMPORTANT !

Ces instructions d'installation et d'utilisation sont destinées au propriétaire du sauna ou à la personne répondant de l'entretien ainsi qu'à l'électricien réalisant l'installation du poêle.

1. MODE D'EMPLOI

1.1. Mise en place des pierres du poêle

L'empilement des pierres du poêle a un impact important sur le fonctionnement du poêle (figure 1).

Informations importantes concernant les pierres du poêle :

- Le diamètre des pierres doit se situer entre 2 et 4'' (5 et 10 cm).
- Utiliser uniquement des pierres angulaires fendues prévues pour être utilisées dans un poêle. La péridotite, l'olivine et la dolérite olivine sont des pierres adaptées.
- **Ne jamais utiliser de « pierres » légères en céramique poreuse ou en stéatite molle dans le poêle. Elles n'absorbent pas suffisamment la chaleur et peuvent endommager les résistances.**
- Dépoussiérer les pierres avant de les empiler dans le poêle.

Lors de la mise en place des pierres :

- Ne pas faire tomber de pierres dans le poêle.
- Ne pas coincer de pierres entre les résistances.

- Empiler les pierres de manière à ce qu'elles se soutiennent entre-elles plutôt que de reposer sur les résistances.
- Soutenir les résistances avec des pierres de manière à ce qu'elles restent verticales.
- Ne pas former de haute pile de pierres sur le poêle.
- Aucun objet susceptible de modifier la quantité ou la direction du flux d'air qui traverse le poêle ne doit être placé à l'intérieur du compartiment à pierres du poêle ni à proximité de ce dernier.

⚠ Recouvrir entièrement les résistances de pierres. Une résistance non couverte risque d'endommager les matériaux combustibles, même à l'extérieur des distances de sécurité. Vérifier qu'aucune résistance n'est visible derrière les pierres.

1.1.1. Maintenance

Étant données les variations importantes de température, les pierres du poêle se désintègrent au fur et à mesure de leur utilisation.

Remettre les pierres en place au moins une fois par

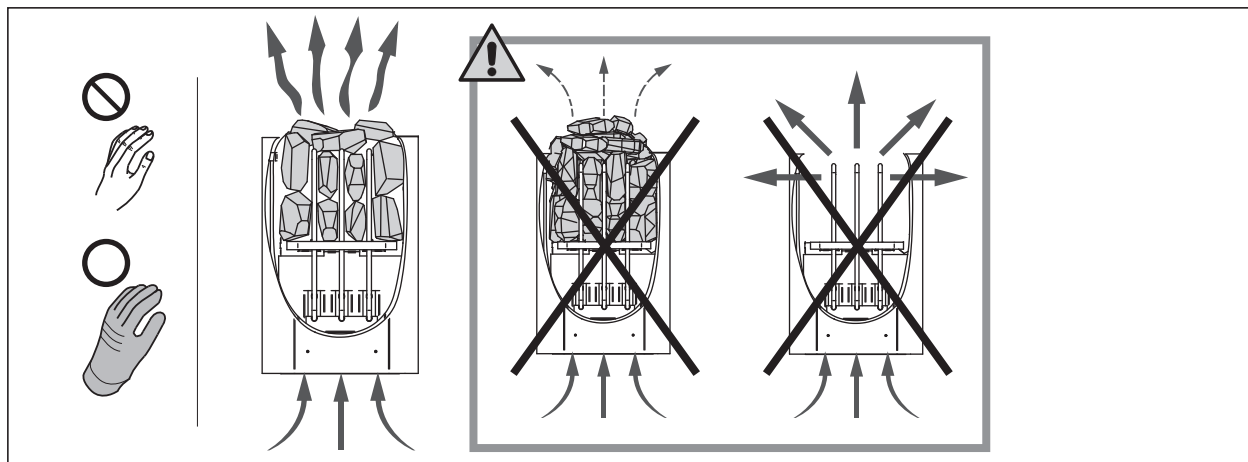


Figure 1. Mise en place des pierres du poêle

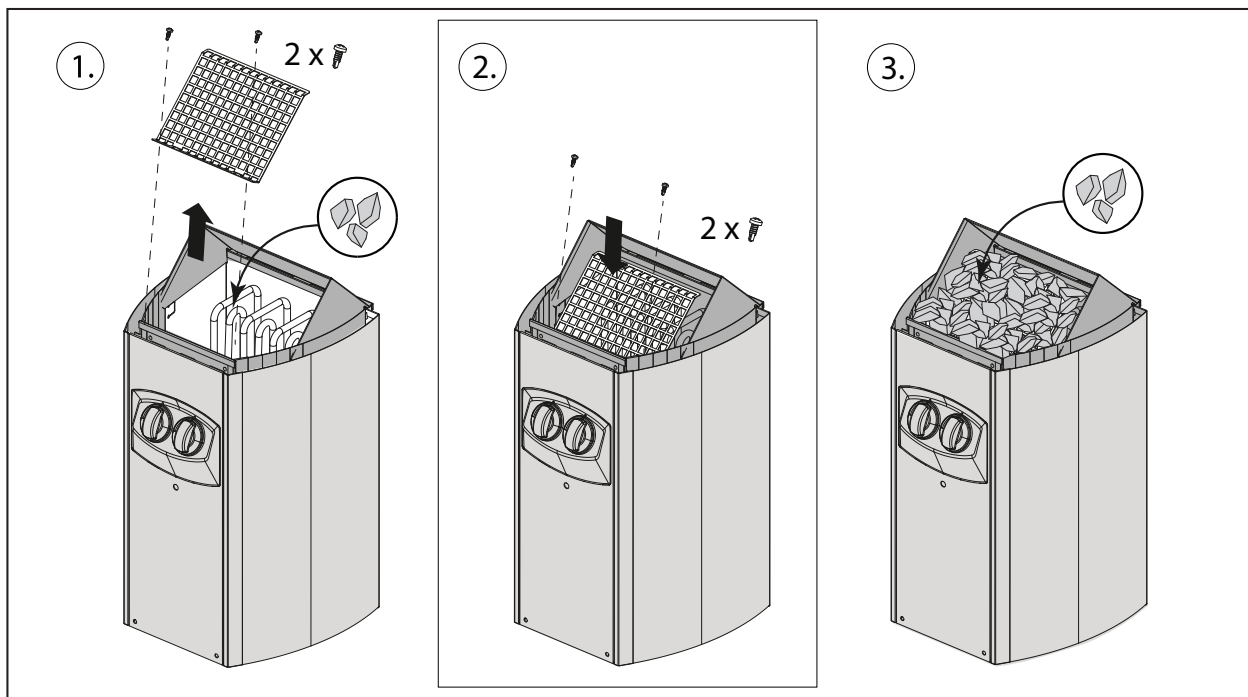


Figure 2. Installation de la grille de sécurité et mise en place des pierres du poêle

Propriétés de l'eau	Effets	Recommandations
Concentration d'humus	Couleur, goût, précipités	< 12 mg/l
Concentration en fer	Couleur, odeur, goût, précipités	< 0,2 mg/l
Concentration de manganèse (Mn)	Couleur, goût, précipités	<0,10 mg/l
Dureté : les substances les plus importantes sont magnésium (Mg) et chaux, c'est-à-dire calcium (Ca)	Précipité	Mg: < 100 mg/l Ca: < 100 mg/l
Eau contenant du chlorure	Corrosion	Cl: <100 mg/l
Eau chlorée	Risque pour la santé	Zakazana
Eau de mer	Corrosion rapide	Zakazana
Concentration d'arsenic et de radon	Risque pour la santé	Zakazana

Tableau 1. Exigences en matière de qualité de l'eau

an, voire plus si le sauna est utilisé fréquemment. Dans le même temps, retirer tous les morceaux de pierre de la partie inférieure du poêle et remplacer toutes les pierres désintégrées par des neuves. Ainsi, la capacité de chauffage du poêle reste optimale et le risque de surchauffe est évité.

⚠ Prêter une attention particulière au tassement progressif des pierres. S'assurer que les résistances n'apparaissent pas avec le temps. Les pierres se tassent plus rapidement deux mois après leur empilement.

1.2. Chauffage du sauna

Pour éliminer les odeurs dégagées par le poêle et les pierres lors de la première utilisation, veiller à une bonne ventilation de la pièce du sauna.

Si la puissance du poêle convient à la salle de sauna, il faudra environ une demi-heure pour qu'un sauna correctement isolé atteigne la température requise (2.3.). Les pierres du poêle chauffent généralement à bonne température en même temps que le sauna. La température appropriée pour les séances de sauna se situe entre 149 et 167 °F (65 et 75 °C).

⚠ Avant la mise en marche du poêle, vérifier qu'aucun objet n'est posé dessus ou à proximité.

1.3. Utilisation du poêle

Les modèles de poêles sont équipés d'un interrupteur horaire et d'un thermostat. L'interrupteur horaire permet de régler la durée de fonctionnement du poêle (60 minutes) et le thermostat de régler la température. ▶ 1.3.1. – 1.3.4.

1.3.1. Mise en route du poêle



Tournez le commutateur de la minuterie (section A sur la figure 3) de OFF à 1h. Le chauffage commence à chauffer immédiatement. Laisser au moins 30 minutes au sauna chauffer à une température moyenne du sauna.

1.3.2. Arrêt du poêle



Le poêle s'arrête lorsque l'interrupteur horaire revient sur OFF. Il est possible d'éteindre le poêle à tout moment en plaçant soi-même l'interrupteur horaire sur OFF.

Éteindre le poêle après la séance de sauna. Il est parfois conseillé de laisser le poêle en route pendant un certain temps pour faire sécher correctement les parties en bois de la cabine.

⚠ Vérifier toujours que le poêle s'est éteint et a arrêté de chauffer lorsque la minuterie a remplacé l'interrupteur horaire sur OFF.

1.3.3. Réglage de la température

Le thermostat (figure 3) sert à maintenir la température souhaitée dans la cabine de sauna. Procéder à des essais pour trouver le réglage qui convient le mieux.

Commencer les essais sur la position maximale. Si, pendant la séance de sauna, la température augmente trop, tourner légèrement l'interrupteur dans le sens inverse des aiguilles d'une montre. Remarque : même un petit décalage par rapport à la partie maximale modifiera considérablement la température du sauna.

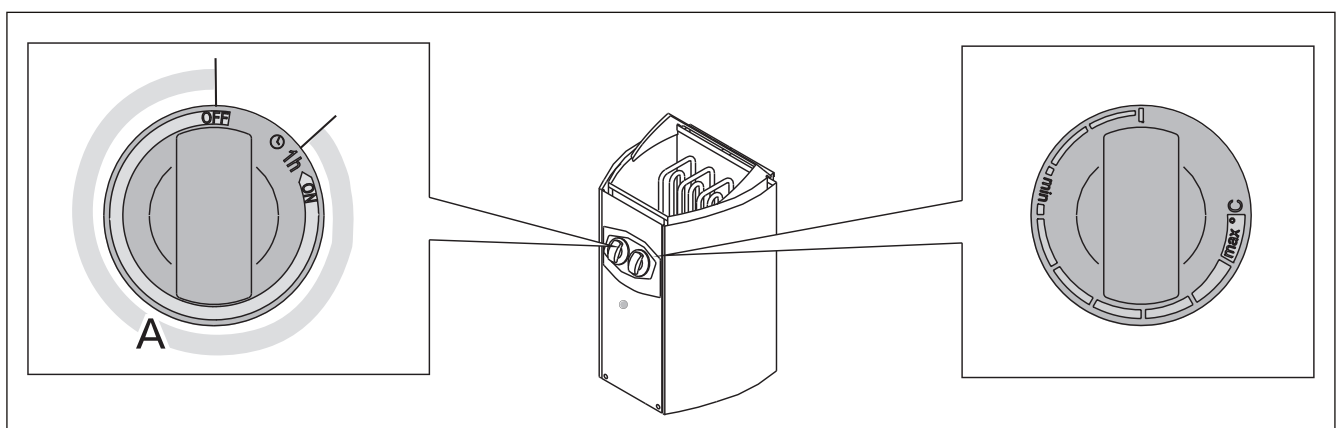


Figure 3.

1.4. Projection de l'eau sur les pierres

L'air du sauna devient sec en chauffant. Pour obtenir une humidité convenable, il faut projeter de l'eau sur les pierres brûlantes du poêle. La chaleur et la vapeur produisent un effet différent d'une personne à l'autre – en procédant à des essais, on peut trouver le niveau de température et d'humidité qui convient le mieux.

Il est possible de générer une chaleur d'une nature douce ou intense, selon ses souhaits, en choisissant de verser de l'eau sur le devant du poêle ou directement au-dessus des pierres.



La contenance de la louche utilisée ne doit pas excéder 0,05 gal (0.2 litres). Ne pas projeter ou verser une quantité d'eau plus importante en une seule fois. En effet, lors de l'évaporation, l'excédent d'eau bouillante pourrait éclabousser les personnes présentes dans le sauna. Veiller aussi à ne pas projeter d'eau sur les pierres lorsque quelqu'un se trouve à proximité du poêle, la vapeur bouillante risquant de causer des brûlures.

N'utiliser que de l'eau remplissant les exigences de qualité de l'eau domestique (tableau 1). Pour aromatiser la vapeur d'eau, n'utiliser que des essences prévues à cet effet. Suivre les consignes figurant sur l'emballage.

1.5. Conseils pour la séance de sauna

- Commencer la séance de sauna en se lavant.
- S'asseoir dans le sauna et profiter de la vapeur aussi longtemps que cela reste agréable.
- Oublier le stress et se détendre !
- Le code des bonnes manières dans un sauna préconise de ne pas déranger les autres par un comportement bruyant.
- Ne pas faire fuir les autres occupants en projetant une quantité excessive d'eau sur les pierres.
- Se rafraîchir la peau afin de la refroidir. Les personnes en bonne santé peuvent profiter d'une baignade rafraîchissante si cela est possible.
- Après la séance de sauna, se laver. Se reposer, puis se rhabiller. Boire un verre d'eau fraîche ou une boisson gazeuse pour rétablir son équilibre hydrique.

1.6. Dépannage



Toutes les opérations d'entretien doivent être réalisées par professionnel de la maintenance agréé.

Le poêle ne chauffe pas.

- Vérifier que les fusibles du poêle sont en bon état.
- Vérifier que le câble de raccordement est branché.
- Vérifier que le centre de contrôle indique un chiffre supérieur à la température du sauna.

- S'assurer que les sécurités surchauffe soient toujours en place. Figure 8.
- Vérifier que le circuit électrique est fermé au niveau du coupe-circuit. Le coupe-circuit doit aussi être de la bonne taille.

La cabine de sauna chauffe doucement. L'eau versée sur les pierres du poêle refroidit trop rapidement.

- Vérifier que les fusibles du poêle sont en bon état.
- Vérifier que toutes les résistances s'allument lorsque le poêle est allumé.
- Augmenter le réglage du thermostat.
- Vérifier que le poêle est suffisamment puissant (▷ 2.3.).
- Vérifier que la ventilation de la cabine de sauna est adaptée (▷ 2.4.).

La cabine de sauna chauffe rapidement, mais la température des pierres reste insuffisante. L'eau versée sur les pierres passe à travers.

- Vérifier que le poêle n'est pas trop puissant (▷ 2.3.).
- Vérifier que la ventilation de la cabine de sauna est adaptée (▷ 2.4.).

Le panneau ou les autres matériaux proches du poêle noircissent rapidement.

- Vérifier que les distances de sécurité sont respectées (▷ 3.2.).
- Vérifier les pierres du poêle (▷ 1.1.). Des pierres en piles trop serrées, le tassement progressif des pierres ou un type de pierres inadapté risquent de gêner le flux d'air qui traverse le poêle et ainsi d'entraîner la surchauffe des matériaux environnants.
- Vérifier qu'aucune résistance n'est visible derrière les pierres. Si les résistances sont visibles, remettre les pierres en place de manière à ce que les résistances soient totalement couvertes (▷ 1.1.).
- Voir également le paragraphe 2.1.2.

Une odeur se dégage du poêle.

- Voir le paragraphe 1.2.
- Lorsqu'il est chaud, le poêle peut accentuer les odeurs présentes dans l'air mais qui ne sont pas liées au sauna ni au poêle. Exemples : peinture, colle, graisse, assaisonnements..

Le poêle émet du bruit.

- Des détonations peuvent parfois se faire entendre ; elles sont vraisemblablement dues au craquement des pierres sous l'effet de la chaleur.
- La dilatation thermique des composants du poêle peut entraîner l'émission de bruits lorsque le poêle chauffe.

2. LE SAUNA

2.1. Isolation du sauna et matériaux muraux

Dans un sauna chauffé électriquement, les surfaces murales massives qui accumulent la chaleur (brique, émail, crépi ou équivalent) doivent être suffisamment isolées pour permettre l'utilisation d'un poêle de puissance raisonnable.

Un sauna est considéré bien isolé si la structure des murs et du plafond comporte :

- Une couche de laine isolante soigneusement appliquée d'une épaisseur de 4" (100 mm) minimum 2" (50 mm).
- Un matériau pare-vapeur, par exemple un papier aluminium, dont les joints sont soigneusement rendus étanches, apposé de façon que la surface brillante soit du côté intérieur du sauna
- Un espace de ventilation entre le revêtement en lambris et le pare-vapeur de 1/4" (10 mm) (recommandation).
- Comme revêtement mural, un lambris d'une épaisseur de 1/2" – 5/8" (12–16 mm) environ.
- Un espace de ventilation de quelques millimètres entre la partie supérieure du lambris mural et celui du plafond.

Pour pouvoir utiliser un poêle de puissance raisonnable, il peut être judicieux d'abaisser le plafond, (hauteur minimale 75" (1900 mm)). Cela diminue le volume du sauna et permet de choisir un poêle de puissance plus faible. L'abaissement du plafond se fait en ajustant la charpente à la hauteur désirée. L'espace vide formé par la charpente est isolé (épaisseur de l'isolant : min. 4" (100 mm)) et revêtu comme indiqué ci-dessus.

La chaleur ayant tendance à monter, la hauteur recommandée entre le banc et le plafond est de 47" (1200 mm).

IMPORTANT ! La protection des murs ou du plafond (par exemple au moyen d'un panneau aggloméré avec liant minéral directement installé) peut provoquer une augmentation dangereuse de la température des murs ou du plafond.

2.1.1. Structure du sauna - informations d'ordre général

CADRE

2" x 4" (50 x 100 mm), 16" (406 mm) o.c.

HAUTEUR DU PLAFOND

Hauteur max. 7'6" (2300 mm)

ISOLATION

Fibre de verre R11 avec le pare-vapeur papier aluminium sur les murs et le plafond avec la surface brillante du papier soit vers l'intérieur du sauna.

PANNEAU DE PLACOPLÂTRE

Se reporter à la réglementation locale. N'est généralement pas exigée dans le cadre d'une utilisation domestique. Se reporter à la réglementation locale en cas d'utilisation commerciale. Si un panneau de Placoplâtre est installé, utiliser un fond de clouage de 1" x 2" (25 x 50 mm) afin de faciliter la fixation des planches des murs et du plafond.

REVÊTEMENT MURAL

Utilisez du bois séché au séchoir (avec une teneur en humidité inférieure à 11 %).

BANCS

Utilisez du bois assorti. Placez les fixations en dessous afin d'éviter que les utilisateurs du sauna se brûlent.

PORTE

Doit s'ouvrir vers l'extérieur et être dépourvue de serrure. Les types de fixations de porte pouvant être utilisés sont les loquets magnétiques, les loquets à friction, les ferme-portes à ressort ou à gravité et autres.

LAMPE

Doit être étanche à la vapeur, montée au mur avec un boîtier de retenue monté dans l'alignement du revêtement mural intérieur. Elle doit être située à 6" (150 mm) du plafond au minimum et ne surplomber ni les bancs ni le poêle. L'ampoule ne devrait pas excéder les watts recommandés par le fabricant de la lampe.

Important ! Aucune prise électrique n'est autorisée dans le sauna. Si un haut-parleur est installé dans le sauna, il ne doit pas être monté à plus de 3' (914 mm) du plancher et doit être éloigné du poêle (consulter le fabricant pour tous renseignements sur le calibrage).

2.1.2. Noircissement des murs du sauna

Avec le temps, il est tout à fait normal que les surfaces en bois de la cabine de sauna noircissent. Ce noircissement peut être accéléré par

- la lumière du soleil
- la chaleur du poêle
- les agents de protection appliqués sur les murs (les agents de protection présentent un faible niveau de résistance à la chaleur)

2.2. Revêtement de sol du sauna

Du fait des importants changements de température, les pierres du poêle se détériorent et s'effritent avec le temps.

La vapeur d'eau débarrasse les pierres des particules et débris détachés en les entraînant vers le sol. Afin d'éviter les inconvénients esthétiques résultant de ces faits, il est conseillé d'utiliser au-dessous et tout autour du poêle un revêtement de sol de type minéral et des joints foncés.

2.3. Puissance du poêle

Lorsque le revêtement des murs et du plafond est en lambris et que l'isolation se trouvant derrière est suffisante pour éviter les pertes de chaleur vers les matériaux des murs, la détermination de la puissance du poêle se fait d'après le volume du sauna. Se reporter au tableau 2.

Les murs d'un sauna en bois rond ou madriers chauffent lentement ;

il faut donc, lors de la détermination de la puissance du poêle, multiplier le volume par 1,5 et choisir la puissance correspondant à ce volume corrigé.

2.4. Ventilation de la cabine de sauna

Doit être assurée par une bouche d'aération basse située près du poêle à 4" (100 mm) du plancher et une bouche d'aération haute située sur la paroi opposée (si possible) à 6" (150 mm) du plafond ou à une hauteur minimale de 24" (600 mm) du plancher. Les bouches d'aération doivent être réglables et permettre de renouveler l'air 5 fois par heure. Le sauna doit être équipé du système d'aération requis par les autorités locales. Figure 4.

2.5. Hygiène du sauna

Pour que les séances de sauna soient agréables, il convient de veiller à l'hygiène de la pièce.

Nous recommandons l'usage de petites serviettes pour s'asseoir, afin que la transpiration ne coule pas sur les bancs. Les serviettes doivent être lavées après chaque utilisation. Il est conseillé de donner aux invités leurs propres serviettes.

Lors du ménage hebdomadaire, il est bon d'aspirer/ de balayer le sol du sauna. Il est aussi recommandé de le laver avec un chiffon humide.

Au moins tous les six mois, le sauna doit être nettoyé à fond. Les murs, les bancs et le sol du sauna doivent être nettoyés avec une brosse et un produit nettoyant pour sauna. Puis rincez la cabine en utilisant de l'eau domestique propre. Éliminer les traces de chaux présentes sur le poêle à l'aide d'une solution d'acide citrique à 10 % et rincer.

Enlever la poussière et la saleté du poêle à l'aide d'un chiffon humide.

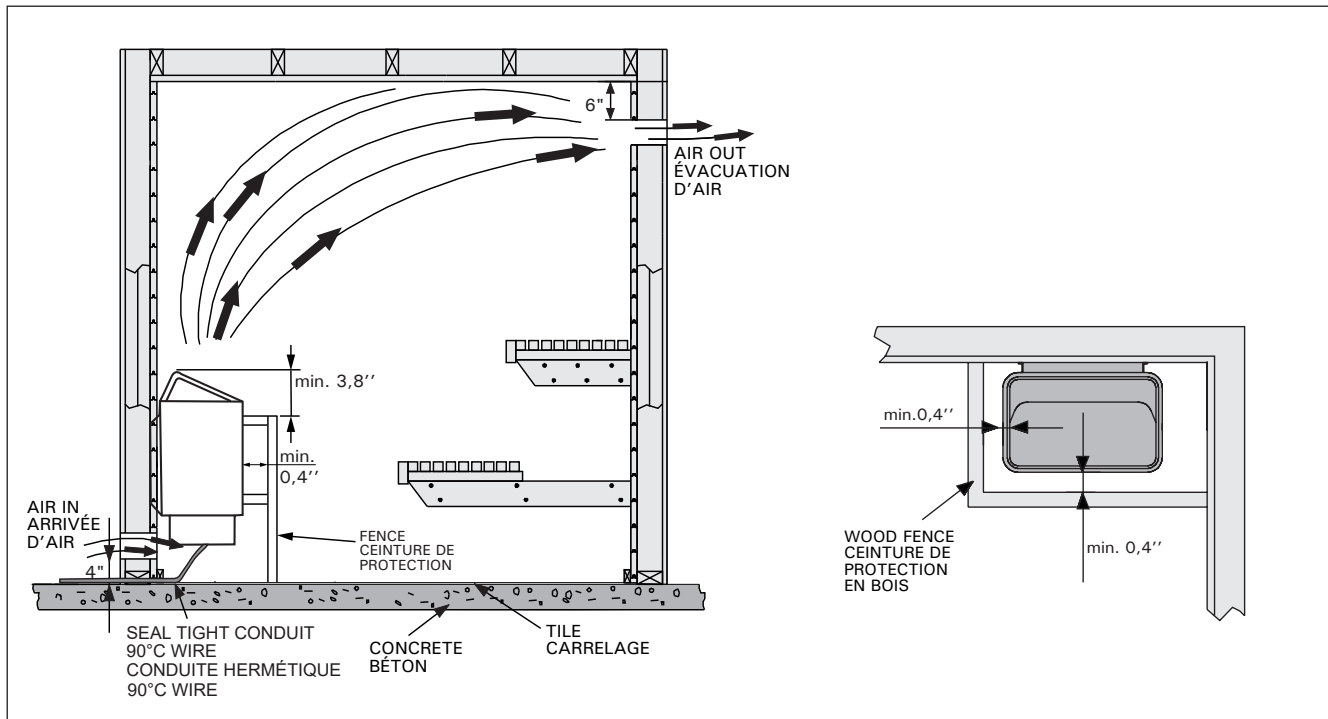


Figure 4. Ventilation de la cabine de sauna et dégagements min. entre la ceinture de protection

3. INSTRUCTIONS D'INSTALLATION

3.1. Avant l'installation

Avant d'installer le poêle, lisez soigneusement les instructions d'installation (figure 7), et vérifiez les points suivants :

- Le volume du poêle doit être adapté pour le volume de la cabine. Le tableau 2 recense les volumes minimum et maximum indicatifs pour chaque puissance de poêle. Condition préalable aux valeurs données : la cabine doit être bien isolée contre la chaleur. Les murs et le plafond sont garnis de lambris.
- Vérifiez que la tension d'alimentation et les ampérages soient disponibles pour le poêle.
- Les fusibles et les câbles de raccordement respectent les réglementations valides et leurs dimensions sont conformes au tableau 2.
- L'emplacement est adapté au poêle (▷ 3.2.).
- ▷ 3.7. Réinitialisation de la sécurité-surchauffe

3.2. Emplacement et distances de sécurité

Les distances de sécurité minimales sont décrites sur la figure 4 et 5.

- **Il est absolument obligatoire de respecter ces valeurs lors de l'installation du poêle. Dans le cas contraire, il existe un risque d'incendie.** (▷ 3.6.)
- **Les morceaux de pierre chaude peuvent endommager les revêtements de sol et entraîner un risque d'incendie.** Les revêtements de sol à l'emplacement du poêle doivent être résistants à la chaleur.

3.3. Ceinture de protection du poêle

Pour des raisons de sécurité, elle est nécessaire et devrait être en bois tendre assorti à la décoration intérieure du sauna. Voir les illustrations 4–5 pour connaître le dégagement nécessaire autour du poêle. La ceinture doit être fixée à la paroi et ne doit pas dépasser le haut du poêle au-dessous du niveau des pierres.

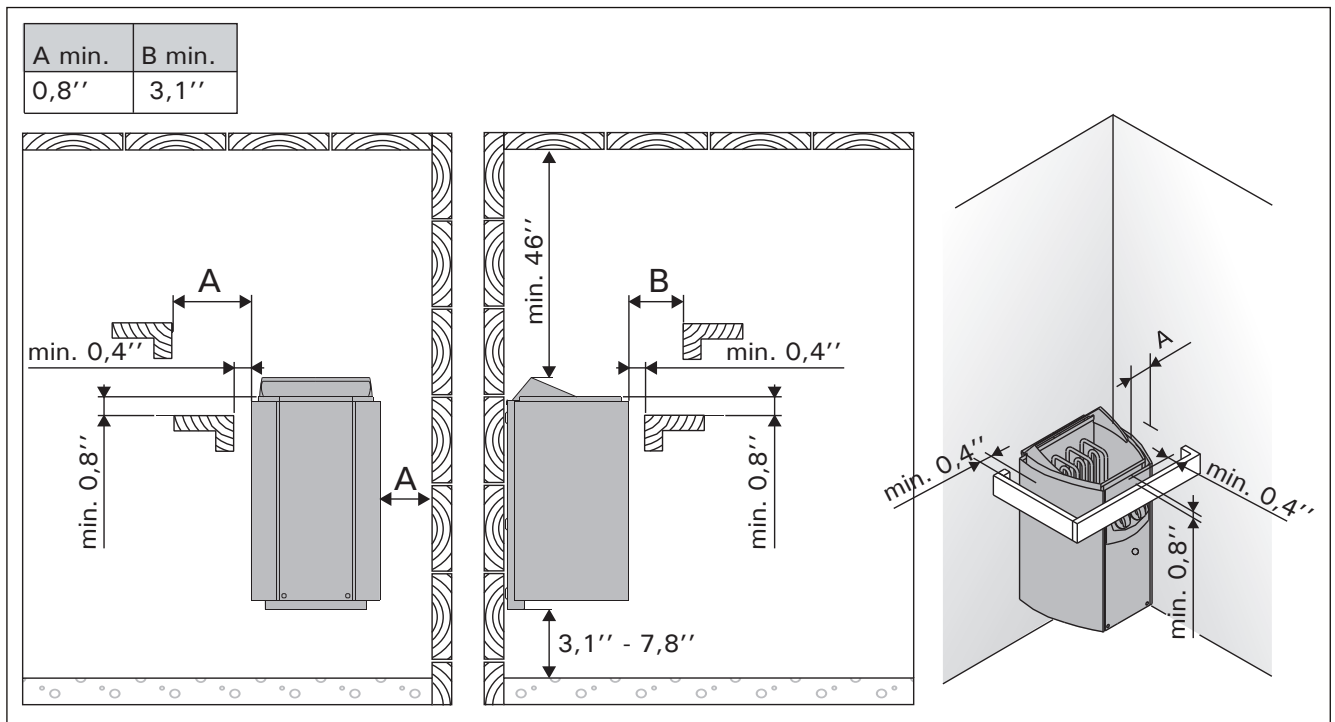


Figure 5. Distance de sécurité minimum

Poêle	Puissance	Dimensions		Pierres		Cabine du sauna						
		Largeur/ profondeur/ hauteur	Poids			Volume		Superficie		Hauteur		
	kW	inch mm	lb/kg	max. lb/kg	▷ 2.3.!		min. CuFt/m ³	max. CuFt/m ³	min sqft	max sqft	min. inch/mm	
HCBU1712241	1,7	11/11/21 280/280/535	15,4 7	28,5 13	70,5	2	106	3	11,3	17	75	1900
HCBU1912241	1,9	11/11/21 280/280/535	15,4 7	28,5 13	70,5	2	106	3	11,3	17	75	1900
HCBU352401	3,5	11/11/21 280/280/535	16,1 7,3	28,5 13	70,5	2	175	5	11,3	28	75	1900

Tableau 2. Données d'installation du poêle

3.4. Raccordement électrique

Le raccordement du poêle au secteur ne doit être réalisé que par un électricien professionnel et conformément aux règlements en vigueur.

Le poêle doit être connecté à un dispositif de déconnexion de tous les pôles de l'appareil, ce qui assure une déconnexion complète dans les conditions de surtension de la catégorie III. La connexion doit être faite conformément aux réglementations locales et générales actuelles.

Les schémas de câblage sont compris dans les instructions d'installation du centre de contrôle.

En cas d'installation non standard, des informations supplémentaires peuvent être obtenues auprès des autorités locales compétentes.

- Sortez le poêle du carton et posez-le à un emplacement approprié dans la cabine du sauna. Respectez les dégagements indiqués dans les figures 4 et 5. Après le raccordement final, l'entrepreneur électricien doit fixer l'appareil de chauffage au sol ou au mur avec les vis ou les boulons requis.
- Voir le schéma de câblage correspondant au modèle de poêle (voir fig. 6). Le poêle doit être installé de manière permanente en utilisant une conduite hermétique entre le poêle et le mur de la cabine (les marettes de raccord ou prises de courant mâle ne sont pas autorisés dans la cabine).

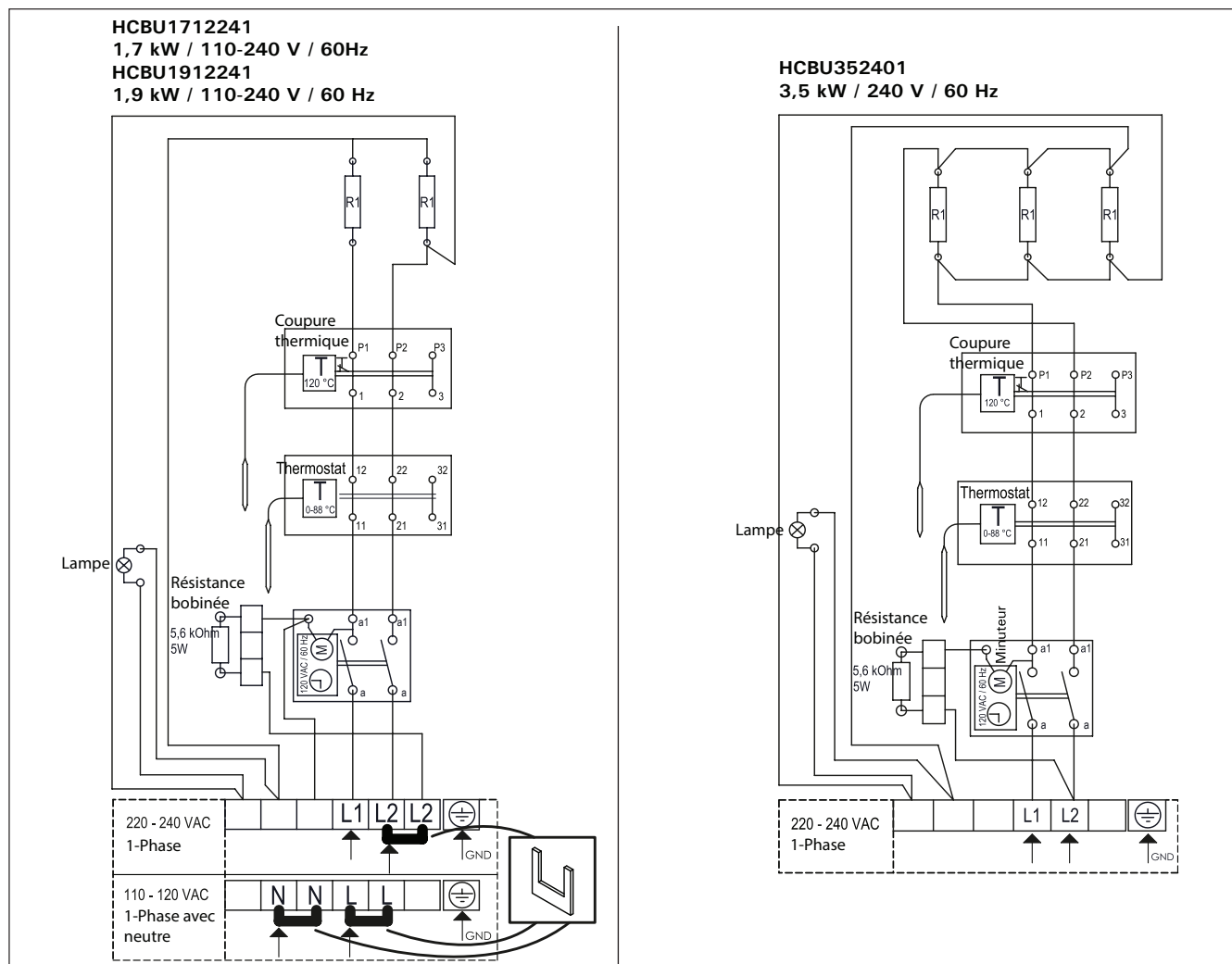
Le câblage doit être effectué par un électricien agréé qui doit suivre le schéma de câblage fourni et respecter les codes locaux. Utilisez du fil de cuivre du bon calibre pouvant résister à une température de 194 °F (90 °C) à l'intérieur des murs du sauna. Utilisez les bornes de terre prévues sur le poêle du sauna pour mettre l'équipement à la terre conformément au code national de l'électricité et aux codes locaux.

- La boîte du poêle contient deux écriteaux. Placer l'écriteau « CAUTION » sur le mur intérieur de la cabine du sauna, bien en évidence au-dessus du poêle (vis et clous inclus). Placer l'écriteau métallique « WARNING » à l'extérieur, sur la porte de la cabine. Vous trouverez les « INSTRUCTIONS D'ENTRETIEN » à la fin de ce manuel.

3.5. Installation du poêle

Voir figure 7.

- À l'aide des vis livrées avec le poêle, fixer la console d'installation du poêle sur le mur. NB ! La présence derrière le lambris devant recevoir les vis de fixation d'une pièce de renfort, par exemple une planche supplémentaire, serait obligatoire, pour que les vis soient solidement fixées. Mais s'il n'y a pas de planches de renfort derrière le lambris, il est possible de fixer les vis solidement sur le lambris.
- Assurez-vous que le fermoir est correctement bien attaché dans le trou.



Modèle	Consommation en kW	Tension V	Ph	Fréquence Hz	Intensité de courant		Min. 90°C. Câble d'alimentation en cuivre de calibre AWG no	
					120 V	240 V	120 V	240 V
					HCBU1712241	1,7	120/240	1
HCBU1912241	1,9	120/240	1	60	15,9	8	14	14
HCBU352401	3,5	240	1	60	-	14,4	-	14

Tableau 3. Câbles d'alimentation (du bloc d'alimentation vers le poêle)

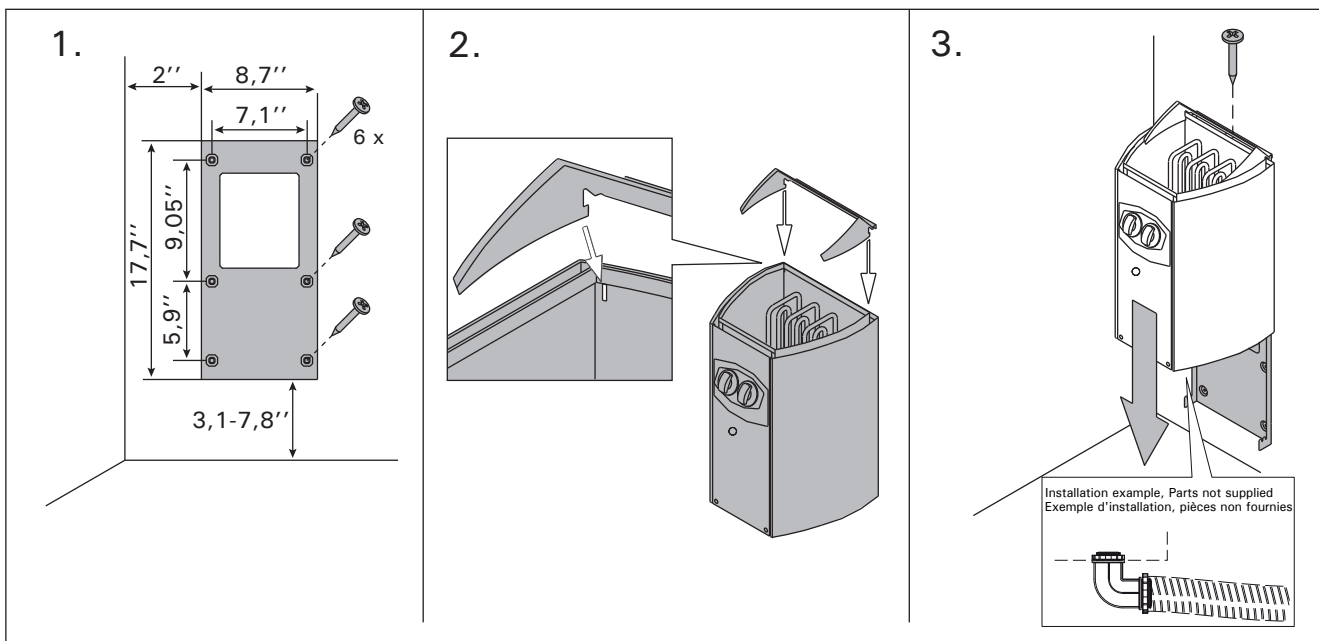


Figure 7. Installer l'appareil de fixation au mur (1.) et le poêle (2.-4.)

3. Soulever le poêle sur la console fixée contre le mur de telle sorte que les crochets de fixation de la partie inférieure de la console s'encastrent derrière le bord du châssis du poêle et que la rainure de la partie supérieure du poêle se plaque contre la console d'installation. Bloquer le poêle à la hauteur du rebord supérieur contre la console à l'aide de la vis..

3.6. Résistance d'isolation du poêle électrique

Lors de l'inspection finale des installations électriques, il est possible que la mesure de la résistance d'isolation du poêle révèle une « fuite », due l'humidité ambiante qui a pu pénétrer dans la matière isolante des résistances de chauffage (pendant l'entreposage/transport). L'humidité disparaîtra des résistances quand le sauna aura été chauffé deux ou trois fois.

⚠ Ne pas raccorder l'alimentation du poêle électrique au disjoncteur différentiel !

3.7. Réinitialisation de la sécurité surchauffe

Si la température de la cabine de sauna devient dangereusement élevée, la sécurité-surchauffe coupe définitivement l'alimentation du poêle. Il est possible de remettre la sécurité-surchauffe à zéro lorsque le poêle a refroidi. Voir figure 8. Veuillez vérifier que les pierres soient correctement empilées et que le capteur soit installé conformément aux instructions d'installation. Se reporter également aux instructions d'installation relatives au centre de contrôle.

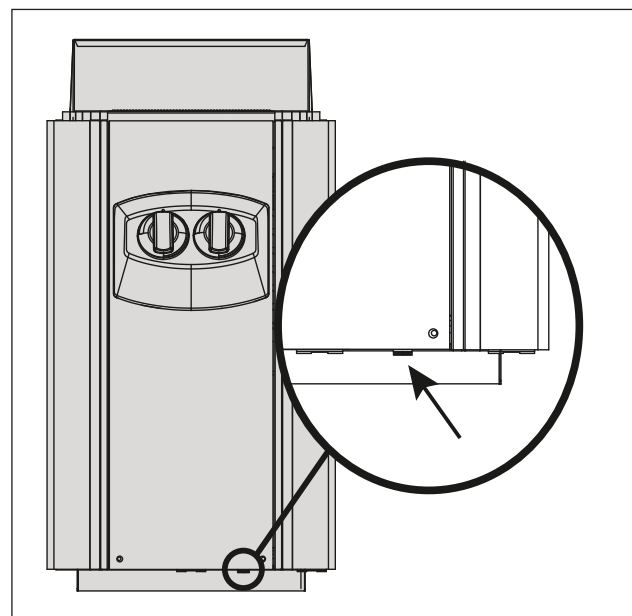
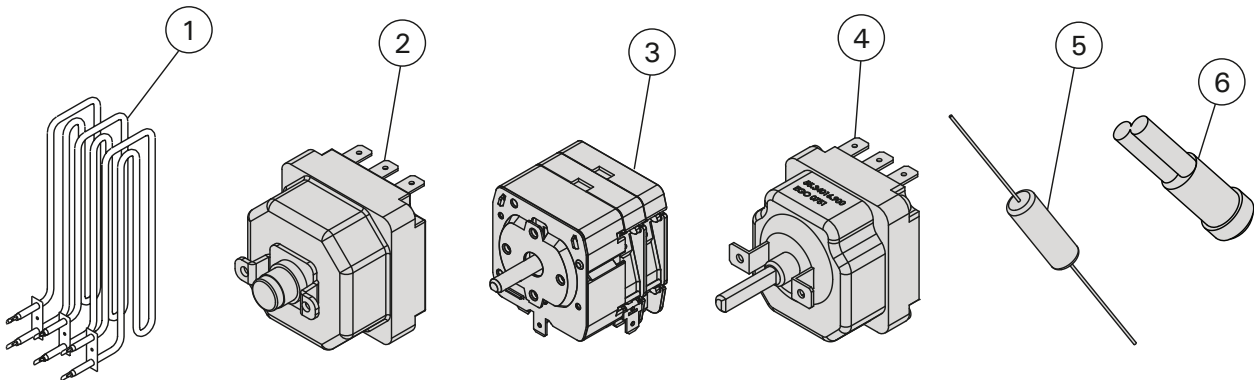


Figure 8. Réinitialiser les boutons pour les sécurités surchauffe.

⚠ La sécurité-surchauffe de l'appareil peut également se déclencher à des températures inférieures à -5 °C / 23 °F (stockage, transport, environnement). Avant l'installation, placez l'appareil dans un endroit chaud. La sécurité-surchauffe peut être réinitialisée quand la température de l'appareil se situe à env. 18 °C / 64 °F. La sécurité-surchauffe doit être réinitialisée avant d'utiliser cet appareil.

4. PIÈCES DÉTACHÉES



N'utiliser que des pièces approuvées par le fabricant !

1	Résistance 850 W/120 V Résistance 950 W/120 V Résistance 1150 W/240 V	ZSB-774 ZSB-772 ZSB-773	HCBU1712241 HCBU1912241 HCBU352401	2 2 3
2	La sécurité-surchauffe	ZSV-330		1
3	Minuteur	Y07-0018		1
4	Thermostat	ZSK-762		1
5	Résistance bobinée 5,6kOhm / 5W	Y07-0017		1
6	Lampe	ZSI-240		1



GUARANTEE

The manufacturer gives a one year guarantee for this heater. The guarantee starts from the date of purchase and includes all the parts of the heater (heating elements, controls, contactors, etc.).

The guarantee covers faults from the manufacture and material only. The guarantee includes a supply of spare parts by the manufacturer or importer after the faulty parts have been returned. Replacing any parts in the heater does not extend the original guarantee period of 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 product. The guarantee is void if the heater is used improperly. The guarantee does not cover delivery costs of the faulty part or repair costs on the field. If the heater is returned to the manufacturer or importer within five years from the date of purchase, the importer will provide free repair work, but may charge for spare parts if the one-year guarantee has expired.

The guarantee is void if installation and wiring has not been carried out by licensed electrician or authorized and licensed service representative. Please note that the installer's signature is needed below.

The guarantee is void if the information below is not filled out and returned to the manufacturer or importer within 15 days of purchase. The guarantee applies only to the first installation of the product and to the original purchaser.

GARANTIE

Le fabricant assure une garantie d'un an pour ce poêle. La garantie court à partir de la date d'achat et concerne tous les composants du poêle (éléments chauffants, contrôles, contacteurs, etc.).

La garantie couvre uniquement les défauts de fabrication et de matériau. La garantie comprend l'échange des pièces défectueuses contre de nouvelles pièces fournies par le fabricant ou l'importateur une fois que les pièces défectueuses lui ont été renvoyées. Le remplacement des pièces du poêle ne prolonge pas la période de garantie au-delà de l'année d'origine.

La garantie ne couvre pas les défaillances provoquées par l'usure normale, une installation incorrecte, un mauvais entretien, le non-respect des instructions d'installation, d'utilisation et d'entretien fournies par le fabricant ou les modifications apportées au produit. La garantie est annulée si le poêle est utilisé de façon incorrecte. La garantie ne couvre ni les frais de livraison de la pièce défectueuse ni les frais de réparation sur place. Si le poêle est renvoyé au fabricant ou à l'importateur dans un délai de cinq ans à partir de la date d'achat, l'importateur fournira une réparation gratuite, mais facturera les pièces si la garantie d'un an est arrivée à expiration.

La garantie est annulée si l'installation et le câblage n'ont pas été effectués par un électricien agréé ou un représentant agréé autorisé. Veuillez noter que la signature de l'installateur doit être apposée ci-dessous.

La garantie est annulée si le formulaire ci-dessous n'est pas rempli et renvoyé au fabricant ou à l'importateur dans les 15 jours suivant l'achat. La garantie s'applique uniquement à la première installation du produit et à l'acheteur d'origine.

Harvia heater model / Modèle de poêle Harvia

Serial number / Numéro de modèle

Date of purchase / Date d'achat

Original purchaser / Acheteur d'origine

Address / Adresse

Purchased from / Acheté chez

**Date of electrical installation /
Date de l'installation électrique**

**Signature of the installer /
Signature de l'installateur**

**Licensed number of installer /
Numéro de licence de l'installateur**

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 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. For the same reasons, wooden duckboard should not be used for flooring.
8. In new construction, a floor drain should also be provided, especially in commercial saunas for sanitary cleaning and maintenance.
9. Seal wood around glass in door—inside and outside—with waterproofing wood protector to prevent warpage.
10. 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. However, 2 coats of waterproofing wood protector may be used on the wood benches in a commercial sauna, so that the wood may be more easily cleaned and kept sanitary — the wood will not absorb perspiration.
11. 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.
12. Required warning signs should be posted according to the instructions.

INSTRUCTIONS D'ENTRETIEN

1. Utilisez uniquement de l'eau propre sur les pierres du sauna. N'utilisez pas d'eau de spa ou de piscine car elle endommagerait gravement le poêle.
2. Utilisez toujours de l'eau propre dans les seaux du sauna et jetez l'eau après chaque utilisation. Frottez les seaux et les louches de temps en temps lorsqu'une pellicule commence à se former après utilisation. Mettez un sac en plastique à l'intérieur du seau pour éviter les fuites.
3. Frottez les bancs avec une brosse souple et de l'eau savonneuse ou un léger désinfectant lorsque c'est nécessaire, environ une fois par semaine dans les saunas commerciaux ou selon la fréquentation du sauna. Par mesure d'hygiène, il est recommandé que chaque utilisateur s'assoie ou s'allonge sur une serviette. (La durée de vie des bancs en sera prolongée.)
4. Essuyez le plancher imperméable avec du désinfectant environ une fois par semaine ou aussi souvent qu'il le faut.
5. Pour préserver la beauté du poêle, essuyez les tâches d'eau avec un chiffon humide de temps en temps.
6. Nos poêles de sauna ne nécessitent aucune maintenance particulière lorsqu'ils ont été correctement installés par un électricien qualifié. Au bout de 1–2 années d'utilisation, il peut être nécessaire de remplacer les pierres si elles se sont effritées ou pulvérisées.
7. Nous recommandons vivement l'utilisation d'un sol qui peut être facilement nettoyé (béton, carrelage ou sol coulé). Le sauna peut ainsi être facilement gardé propre. Il est fortement déconseillé de mettre un tapis dans un sauna ! Un tapis deviendrait un support idéal pour les bactéries dans l'environnement humide du sauna. Il favoriserait également la transmission des maladies des pieds telles que le pied d'athlète.
8. Dans une nouvelle construction, un siphon de sol doit également être installé pour faciliter le nettoyage et l'entretien, en particulier dans les saunas commerciaux.
9. Imperméabilisez le bois autour de la vitre de la porte (à l'intérieur et à l'extérieur) avec du protecteur pour bois imperméabilisant pour éviter qu'il ne se déforme.
10. S'il se forme des taches sur le bois à cause de la transpiration, vous pouvez légèrement le poncer avec du papier de verre à grains fins afin de lui redonner son bel aspect. Nous déconseillons l'utilisation de teinture ou de vernis car des vapeurs toxiques risquent de se dégager sous l'effet de la chaleur. Cependant, vous pouvez appliquer 2 couches de protecteur pour bois imperméabilisant sur les bancs en bois d'un sauna commercial afin que le bois soit plus facile à nettoyer et reste hygiénique. Ainsi, il n'absorbera pas la transpiration.
11. La cabine du sauna se réchauffe plus rapidement si la bouche d'aération haute est fermée pendant la période de chauffage. La bouche d'aération basse peut toujours rester ouverte.
12. Les écriteaux d'avertissement requis doivent être apposés selon les instructions.