Spirit Heater
Installation & Owner's Guide



IMPORTANT SAFETY INSTRUCTIONS

DANGER: Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING: Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION: Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE: Indicates information considered important, but not hazard-related.

READ ALL INSTRUCTIONS BEFORE INSTALLATION AND USE TO AVOID INURY OR DAMAGE TO HEATER

FOLLOW SAFETY INFORMATION IN THIS DOCUMENT TO AVOID SERIOUS INJURY OR DEATH

REFER TO YOUR LOCAL BUILDING CODES FOR ANY SPECIFIC INSTALLATION REQUIREMENTS

ALL ELECTRICAL WORK NEEDS TO BE COMPLETED BY A LICENSED ELECTRICIAN. FAILURE TO DO SO COULD CAUSE INJURY OR DAMAGE TO THE HEATER.

MANUFACTURERS MANUAL TAKES PRECEDENCE OVER ANY DIRECTIONS LISTED IN THIS DOCUMENT

KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

⚠ WARNING

• 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.

• Consult your doctor about any health-related limitations related to sauna use. Ignoring advice from your medical provider could cause serious injury or death.

• Do not let people with pre-existing health conditions bathe in the sauna on their own. Using the sauna could cause these users to lose consciousness.

• Parents should consult your pediatrician before allowing children to use the sauna. Ignoring advice from your medical provider could cause serious injury or death.

• Do not smoke, use alcohol, or exercise in the sauna. These tasks could cause users to lose consciousness.

• Do not exceed 30 min. in the sauna at one time, as excessive exposure may be harmful to health. The sauna should not be used as an endurance test.

• Do not place any combustible material over the sauna heater (towels, bathing suits, wooden bucket or ladle)! This will cause the sauna to catch fire.

• Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98,6 ºF. The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting.

• Do not sleep in a sauna in which the heater is operating. Sleeping in a heated sauna may lead to injury or death.

• Do not alter the heater in any way, unless explicitly instructed in this manual. Altering the heater could cause electrocution or fire risk.

• Only use stones approved for sauna heater use. Inadequate stones may crack or explode leading to serious injury.

⚠ CAUTION

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

• Do not throw excessive amounts of water on the stones. The evaporating water is boiling hot and could cause burns.

• Do not throw water directly onto the elements. This could cause burns and damage to the heater.

• Be very careful when moving in the sauna, as the benches and floors may be slippery. This could cause the user to slip and fall.

HEATER INSTRUCTIONS

Your sauna is paired with a genuine Finnish heater manufactured by Harvia, the world leader in sauna heaters. This guide should be used in conjunction with the manufacturer's heater manual found inside the heater box. Please note, a licensed electrician should perform all electrical work, and Harvia staff is available to assist with any questions you or your electrician may have. For technical assistance, please call 877-842-7842 or email us at support@harvia.us.

PERFORMANCE EXPECTATION

Based on its cubic footage, your sauna kit has been paired with an appropriately sized heater to achieve optimal sauna temperatures. Properly installed, you should expect your Spirit heater to consistently heat your sauna to at least 170 F at approximately head height when sitting on the bench. This temperature should be achieved in 45-60 minutes, although this timeframe can be longer depending on the ambient temperature outdoors.

Please note, saunas at elevations greater than 5,000' above sea level may not perform as efficiently as they would at sea level. If you are above this threshold and are not achieving the aforementioned expectations, please contact Harvia technical support.

HEATER WARRANTY

Your Harvia heater comes with a 1 year warranty.

Information for your electrician:

4.5kW Spirit Heater

- 30-amp double pole breaker
- 240 volts
- 1 Phase
- 12/2 wire. If the distance is greater than 90 feet from the power source, we recommend using an 10/2 wire to accommodate for voltage drop.
- Use copper wire with 90C insulation

6.0kW & 7.0kW Spirit Heaters

- 30-amp double pole breaker for 6kW, 40-amp double pole breaker for 7kW
- 240 volts
- 1 Phase
- 10/2 wire
- Use copper wire with 90C insulation

8.0kW & 9.0kW Spirit Heaters

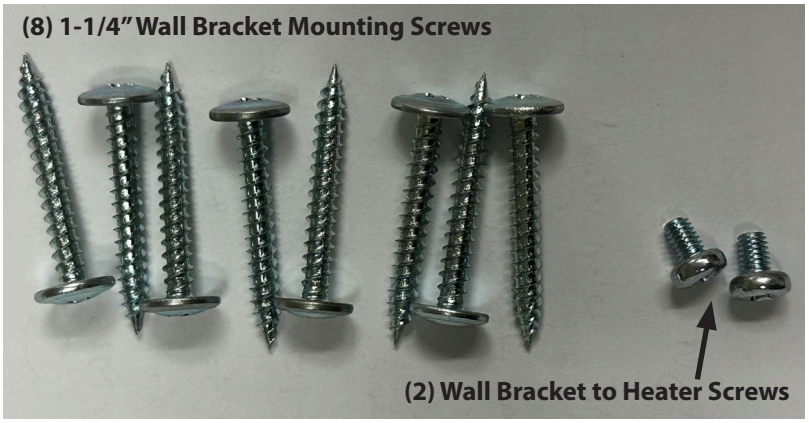
- 40-amp double pole breaker for 8kW, 50-amp double pole breaker for 9kW
- 240 volts
- 1 Phase
- 8/2 wire
- Use copper wire with 90C insulation

POSITIONING YOUR HEATER

⚠ CAUTION

- **Improper installation of heater mounting bracket could cause heater to fall leading to burns and other injuries.**

The Spirit heater is a wall mounted unit. Position the heater in the designated heater location in your sauna according to the instructions below. Use the wall mounting screws provided in the heater box hardware bag.



INSTALLING THE MOUNTING PLATE FOR:

Before beginning, remove the protective coating off of the mounting plate

BARREL SAUNAS

- Your Spirit heater will be offset from the wall approximately 1.5" in a barrel sauna. Secure the provided 2x4s using the provided 2.5" screws so that they are centered above the bottom brace. The 2x4s should be 5" above the brace. (Image 1)
- Install the mounting plate so that the bottom is secured to the bottom brace, and the top 3/4 is secured to the 2x4s you installed above. (Image 2) The mounting plate should be 4-4.25" off of the barrel floor. Use the mounting screws provided in the heater box.
- The LED light will be partially obscured – this is intentional.



Image 1



Image 2

RESPITE SERIES INDOOR SAUNAS

(Logan, Auburn/Bluestone, Madison, Rainelle, Grayson, and Bridgeport/Braxton)

- The mounting plate can be mounted so that the bottom sits just above the venting holes. This should be approximately 12" off of the floor. Center the bracket between bench and front wall. Use the mounting hardware to secure the mounting plate to the wall of the sauna (Image 3).



Image 3

VISION INDOOR SAUNAS

(Spectacle, Serena, Oasis, Sanctum, Titan)

- Install the mounting plate on the wall so it sits 8-9" above the floor in the sauna over the vents. Use mounting screws provided in heater box.

ELEMENT INDOOR SAUNAS

(Hillsboro, Sutton, Worthington, and Patterson) & Cabin Saunas (Allegheny, Appalachia, & Timberline)

- Install the mounting plate on the wall so it sits 4-12" above the floor in the sauna. Use mounting screws provided in heater box.

CUBE OUTDOOR SAUNAS

- Place the bottom of the bracket roughly 10" from the flat floor, centered between the lower bench and front wall. This should be approximately where the curve ends and the flat wall begins (Image 4).



Image 4

PLACING THE HEATER

- Place your heater on the mounting plate so the four J-Hooks catch the slots on the mounting bracket. (Image 5-6)
- Once you are satisfied with the placement of the heater, remove the heater from the mounting plate to have your electrician connect it to power.
- When mounting heater for final installation, insert screws through mounting bracket and J-Hooks. (Image 6)



Image 5



Image 6

POSITIONING THE HEATER COMPONENTS

Note: *It is possible you will receive two temperature sensors - one in the heater box and one in the Xenio control box. Use the one from the* ***heater box****.*



Indoor Saunas

For indoor sauna applications, mount the power unit on or near the sauna; but not inside the sauna. It can be mounted on the exterior of the sauna, or on an adjacent wall. The main power for your heater will connect here first, and then relay onto your heater. Next, consider where you'd like to mount your touchpad. You can mount the touchpad wherever it's most convenient for you. Do not mount the touchpad in the sauna itself.

Outdoor Saunas

Neither of these components are waterproof, so proper precautions should be taken for outdoor sauna applications. Please consider the following:

Power Unit



- The power unit should be mounted in a dry location. If it cannot be mounted in a dry location, then it should be mounted in a ventilated weatherproof enclosure.
- The sauna is not a dry location, do not mount the power unit inside the sauna.
- Please note that the temperature sensor that comes with the sauna kit has a 15' reach - the sensor is mounted in the sauna and connects to the power unit. If the sauna is located greater than this distance away from where the power unit is installed, then the power unit should be mounted nearer to the sauna in a weatherproof enclosure with proper ventilation. The image on the right is an example of an enclosure. Alternatively, you can purchase a longer temperature sensor wire directly from Almost Heaven Saunas.

Touchpad

- The touchpad should be mounted in a dry area. It needs to be mounted in weatherproof box, and never inside the sauna.
- The touchpad connects to the power unit with the provided 20' data cable. If you need a longer data cable for your application, you may purchase one directly from Almost Heaven Saunas.

CONNECTING YOUR HEATER TO POWER

⚠ DANGER

- **Turn off power to heater and power unit at the breaker before beginning installation. Do not turn power on until installation is complete. Failure to turn off the power could lead to electrocution and even death.**

NOTICE

- **Do not use ground fault interrupter (GFI), per UL listing and approval. Using GFI will cause damage to the heater.**

CX30-U1-U3 WIRING

Incoming Power

First, you will need to bring power to your power unit. Remove the power unit's cover and pry out the appropriate knockouts that will allow the wiring to enter and exit the unit.
Connect the power cord to the appropriate terminals, with the four hot lines connecting to the left-most L1, L2, L3, and arrow terminals, and the ground connecting to the ground terminal (Image 7). A neutral line is not needed - this is only required if a light or ventilation fan is connected to the power unit, an application that is not available in the U.S. market.

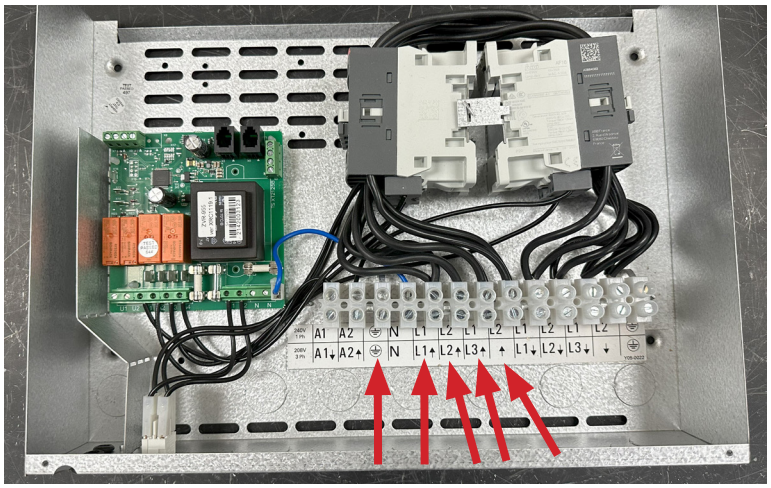


Image 7

Outgoing Power

Next, you'll want to relay power to the heater itself.

First, connect the ground at the power unit to the ground terminal at the heater. Next, connect outgoing L1 to $L1_1$ at the heater, outgoing L2 to $L1_2$, outgoing L3 to $L2_1$ at the heater, and arrow to $L2_2$ at the heater. Next, complete the high-limit safety-circuit by connecting A1 at the power unit to A1 at the heater, and A2 at the power unit unit to A2 at the heater (Images 8-9). You may use 10ga wire for the high-limit safety circuit connections.

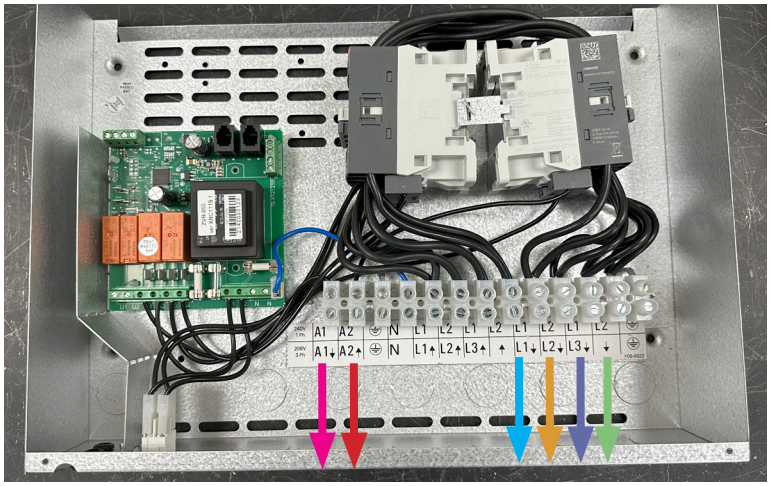


Image 8

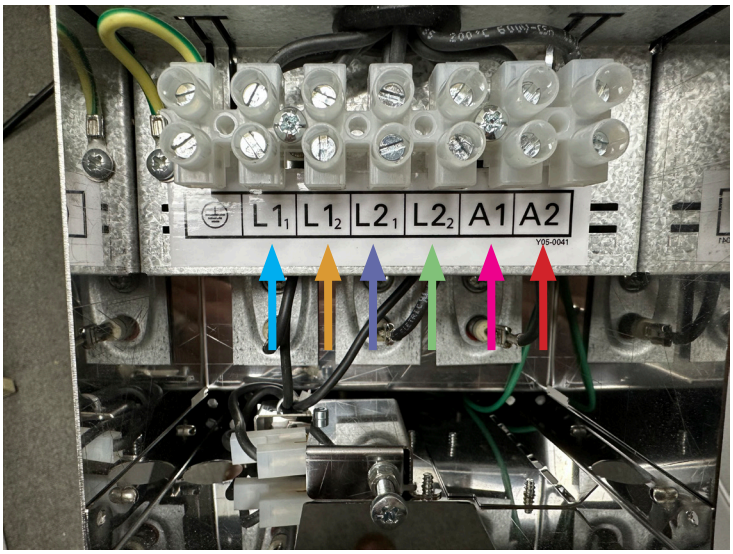


Image 9

CX45-U1-U3 WIRING

Incoming Power

First, you will need to bring power to your power unit. Remove the power unit's cover and pry out the appropriate knockouts that will allow the wiring to enter and exit the unit.
Connect the power cord to the appropriate terminals, with the two hot lines connecting to the left-most L1 and L2 terminals, and the ground connecting to the ground terminal (Image 9). A neutral line is not needed - this is only required if a light or ventilation fan is connected to the power unit, an application that is not available in the U.S. market.

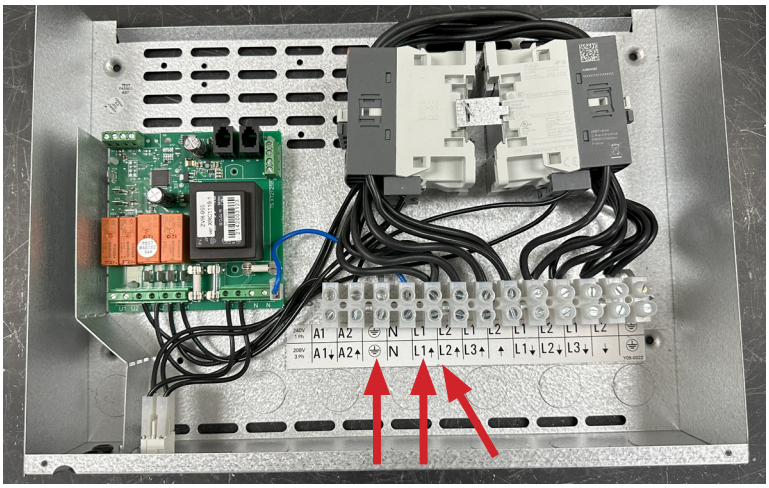


Image 10

Outgoing Power

Next, you'll want to relay power to the heater itself.

First, connect the ground at the power unit to the ground terminal at the heater. Next, connect outgoing L1 to L1 at the heater, and outgoing L2 to L2 at the heater. Next, complete the high-limit safety-circuit by connecting A1 at the power unit to A1 at the heater, and A2 at the power unit unit to A2 at the heater (Images 11-12). You may use 10ga wire for the high-limit safety circuit connections. In the heater, use the supplied copper jumpers to connect $L1_1$ to $L1_2$ & $L2_1$ to $L2_2$ (Image 12).

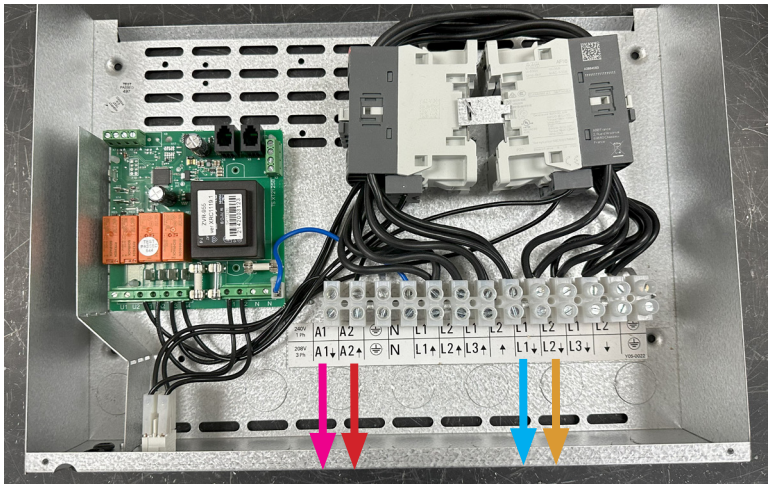


Image 11

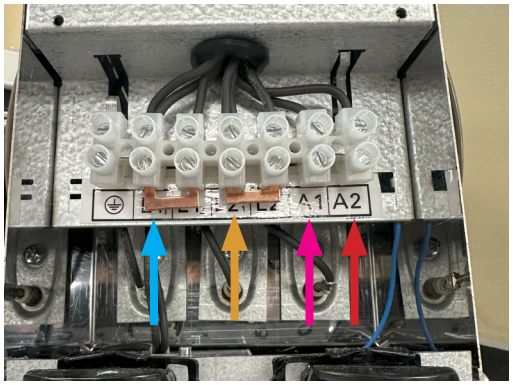


Image 12

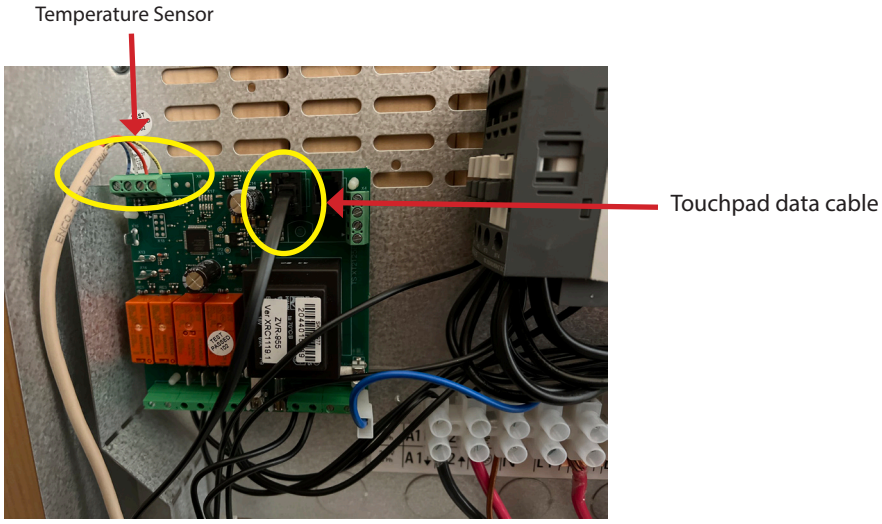
Temperature Sensor

The temperature sensor mounts in your sauna and provides feedback to the power unit regarding the temperature in your sauna. We advise mounting this sensor approximately 14" to the side of the heater, and approximately 4" below the highest point of the sauna. Use the provided hardware to mount the sensor.





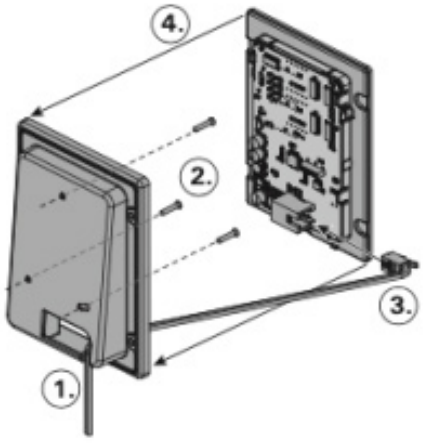
Next, feed the sensor wire out of your sauna in order to connect to the power unit.
Secure the wiring to the circuit board mini-terminal. Starting on the outside and moving in, the wires should connect in the following order: blue - white - red - yellow.



Touchpad

The touchpad should be mounted indoors in a dry location, preferably in your home. Once you've determined this location, use a flathead screwdriver to gently pry the screen of the touchpad from the mounting bracket. Feed the data cable through the hole in the mounting bracket, and mount the bracket to the location you selected. Push the data cable connector into the port on the back of the screen and snap the screen back into the bracket.

Next, connect the other cable to the port closest to the power unit's mini-terminal block that is connected to the temperature sensor. Replace the power unit's cover and turn the power switch to the on position.



PLACING THE STONES

⚠ WARNING

- **Do not operate the heater without rocks properly installed beyond the initial burn off. This creates a fire risk and damage to the heater.**

⚠ CAUTION

- **Before placing or adjusting stones, ensure heater is back to room temperature. Failure to do so may cause burns.**

NOTICE

- **Only use rounded sauna stones.**

Rinse your sauna stones to prepare them for placement. Remove the rock guard and set aside. Begin by placing larger stones on the bottom and sides. Then fill towards the middle with the meduim to smaller stones. The stones should touch the steel grid, but not bend it. Replace the stone guard you removed at the beginning of the heater installation.

Note: Packing stones in too tightly will restrict airflow and affect the efficiency of your heater. Loosely position the stones around and above the steel grid. It is common to have stones left over.

OPERATING YOUR HEATER

Note: Your touchpad's default settings are compatible with your heater. No changes are necessary.

Immediate Start

Turn your breaker on. If everything is connected correctly, the buttons at the bottom of the screen should illuminate. The bottom left button is the main power unit - press it, and you should hear a loud "clunk" from the power unit, which is the contactors engaging. If you do nothing, it will begin heating immediately; the display will show the current temperature in the sauna, as well as the time remaining on the heat cycle.



Note: On the initial cycle, run for five minutes with your sauna door open, to allow the non-toxic protective coating on the heating elements to "burn off". It is normal to see some light smoke as this coating burns off.

Delayed Start

Turn the power button on the touchpad. Press "menu" until the clock icon is flashing. Adjust the preset time by pressing + or - until you get to the desired preset time. You are able to preset your heater in 10 minute increments for up to 12 hours. The time remaining before your heater begins heating should appear below the brackets at the top of the touchpad.



Setting the Temperature

The temperature displayed on the screen is the temperature inside the sauna where the temperature sensor is mounted. To set your desired sauna temperature, press the power button on the touchpad. Press "menu" until the thermometer icon flashes. Adjust the temperature with the + or - until your desired temperature is displayed. The sauna will heat to and hover around this temperature.

GENERAL OPERATION INFORMATION

•Your heater is UL certified. Because of this, it is required to shut off after one hour of use. If you wish to continue your sauna session, you will have to restart the heater if the heating period times out.

•This is a traditional sauna heater with sauna stones. As such, you may pour water onto the stones according to your humidity level preference. Please note, however, it often only takes a ladle-full to achieve the desired effect.

TROUBLESHOOTING

⚠ DANGER

- **Turn off power to heater at breaker before performing maintenance on the or power unit heater. Failure to turn off the power could lead to electrocution and even death.**

⚠ CAUTION

- **Before placing or adjusting stones, ensure heater is back to room temperature. Failure to do so may cause burns.**

If the sauna heater does not operate after the initial installation:

Check the breaker to be sure it is on

Verify with your electrician that 240 volts is reaching the heater

Double check that the touchpad is being operated correctly (refer to "Operating the Heater")

If the sauna heater operates but the sauna room does not come to temperature:

Verify the timer has not timed out. If it has, restart it.

Assess how the stones are placed around the heating elements. If they are packed too tightly, it will restrict airflow and affect the efficiency of your heater. Reposition the stones if needed.

If there is an error code displayed on the touchpad, please refer to the error code list found in the manufacturer's manual

Check the position of the temperature sensor (refer to "Temperature Sensor" above). If it is too high in the sauna or too close to the heater, it will trigger a premature shutoff in your heater.

If your heater isn't heating, turn off your breaker and try pressing the reset button under the heater as the high-limit safety circuit may have been tripped. If this continues to happen, your sensor may be too high or too close to the heater.

If none of the above recommendations get your heater working, please call Almost Heaven Saunas at 888-355-3050 to diagnose further.