

KIP Heater Installation & Owner's Manual



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.

Manufactured by:





-  READ ALL INSTRUCTIONS BEFORE INSTALLATION AND USE TO AVOID INJURY 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 °F. 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.

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⚠ 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 RATE OUTDOORS staff is available to assist with any questions you or your electrician may have. For technical assistance, please email INFO@RATEOUTDOORS.COM

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 KIP 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 RATE OUTDOORS.

HEATER WARRANTY

Your Harvia heater comes with a 1-year warranty on the heating elements, and a 5-year warranty on the other components.

Information for your electrician:

4.5kW and 6.0kW KIP Heaters

- 30-amp double pole breaker
- 240 volts
- 1 Phase
- 10/2 wire. If the distance is greater than 90 feet from the power source, we recommend using an 8/2 wire to accommodate for voltage drop.
- Use copper wire with 90C insulation

8.0kW KIP Heaters

- 40-amp double pole breaker
- 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.

Unpack your heater, setting aside the trim pieces and bag with placards and screws (1).



Image 1

Remove the hardware bag from the baggie with the safety placards (2), selecting the two longer lag screws (1.5"). You will secure these into the sauna wall so that ¼" of the screw protrudes from the wall (3, 4).



Image 2



Image 3



Image 4

- a. For **barrel saunas**, the 1 1/2" lag screws should be mounted approximately 20" off the lowest point of the barrel and spaced 15 ¼" apart and centered above the vent holes. **Note:** The heater will conceal a portion of the LED light. This is normal. (5).



Image 5

b. For **indoor saunas**, the screws should be mounted 20" off the floor and spaced 15 ¼" apart approximately centered above the vent holes (if present). It is fine that the heater is covering the holes as ventilation still occurs (6).



Image 6

Hang the heater on the mounting screws to ensure it is level and that its base sits 5-7" off the floor of the sauna.

If these criteria are met, make a mark on the wall of the sauna directly behind one of the rubber gaskets on the lower back of the heater (7); this will be where the power enters the sauna. Take the heater off the wall and remove the rubber gasket, exposing the cutout. It does not matter which gasket is removed (8).

NOTE: While this location is the most common, the power can enter the sauna at any location. It is **not** recommended you use the pre-drilled vent holes as an entrance for the conduit.



Image 7



Image 8

REMOVING THE STONE GUARD AND BOTTOM COVER

Remove the two screws holding the stone guard in place. Pry the guard back and lift up to remove it. Clip the ziptie holding the metal sensor housing from the elements and set it aside for later installation (9 – 11).



Image 9



Image 10



Image 11

Flip the heater on its back and remove the bottom cover. Locate the 4" temperature sensor, uncoiling the filament and wiring it out the small notch at the base of the heater. Set the sensor aside for later installation (12 – 14).



Image 12

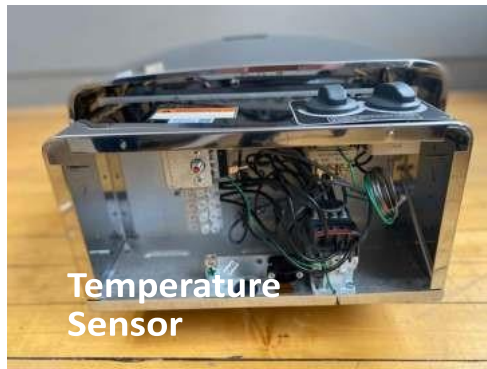


Image 13



Image 14

CONNECTING TO POWER

⚠ DANGER

- Turn off power to heater 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.
- Bore a hole at the mark you made in step 2, being sure it is wide enough to accommodate the wire (15). Feed the wire through this hole and then through the cutout at the base of the heater (16). Being sure the breaker is off, connect your heater to power according to the diagram below. The only connections that should be made are two hot lines to L1 and L2, and the ground line to the

ground screw (17). Replace the bottom cover once wiring is complete, and rehang the heater on the screws (18). Turn the breaker on.



Image 15



Image 16

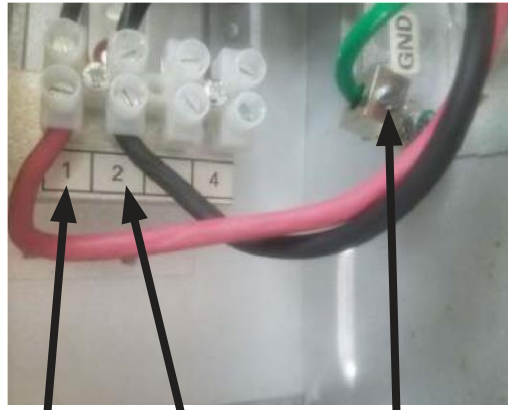


Image 17



Image 18

L1 L2 GND



Image 19

NOTE: The power should **not** enter the heater through the cutout on the bottom cover – this cutout is to allow access to the high-limit reset button (19).

OPERATING THE HEATER

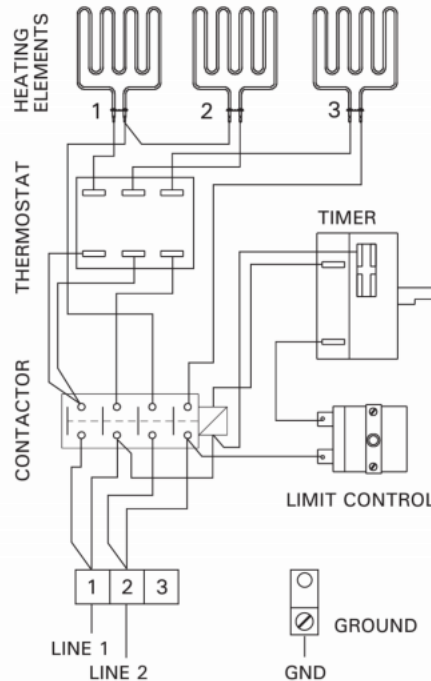
This heater is operated using two dials – the thermostat timer.

Thermostat (left) controls the temperature of the sauna according to your personal preference.

Timer (right) turns the heater on and off and has the ability to delay the start.

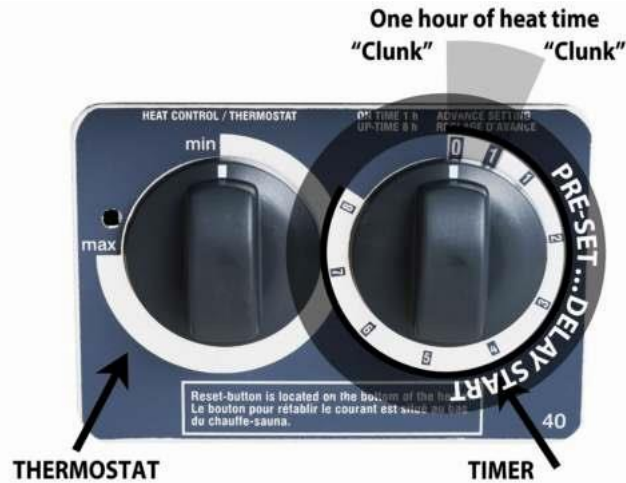
If the heater has power, you should hear a loud “clunk” at both the 0 and the large 1. In between these “clunks” is one hour of heat time.

Internal wiring only
240 V 1 PHASE HEATER
 KIP-30-B1 / KIP-45-B1 / KIP-60-B1 / KIP-80-B1



and the

Set it



To immediately turn the heater on, we recommend turning the dial past the two clunks to number 1 or 2. Turn the timer back until one loud “clunk” is heard, immediately stopping the turn. This will begin the one hour of heat time.

The heater will automatically shut off after one hour. You may have to restart your heater while you are in the sauna.

The smaller numbers 1-8 refer to the number of hours for the delay start. For example, if you turn the timer to 5, your heater will *begin* heating in five hours.

With your sauna door open, turn on your heater for five minutes 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.

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.

While the heater is cooling, rinse your sauna stones to prepare them for placement.

Place the smaller stones in between and around the three heating elements *being sure that the heating elements stay in their original vertical position and do not touch each other*. **The stones should touch the elements but not bend them**. Reserve the larger stones for placement on top of the heating elements, covering them completely (21, 22). Replace the stone guard.

NOTE: Packing stones in too tightly will restrict airflow and affect the efficiency of your heater. Loosely position the stones around and above the heating elements. It is common to have 5-10 stones left over.



Image 21



Image 22

TEMPERATURE SENSOR PLACEMENT

Mount the sensor housing (the metal component zip tied to the elements in step 1) approximately 14" to the side of the heater and 14" below the highest point of the sauna. If it is too high on the wall or too close to the heater, it will sense that the sauna is hotter than it actually is, triggering a premature shut off (23).



Image 23

Place the sensor pin in the housing with the bulb upright and close the wings of the housing over the sensor pin (24, 25). Conceal the sensor housing and pin with the sensor cover and provided screw (26).



Image 24



Image 25



Image 26

Conceal the sensor wire with the grooved trim pieces from step 1 (27). You will likely have to cut several trim pieces to fit the distance between your heater and the sensor pin. Mount them with the screws provided in the hardware baggie you removed in step 1.



Image 27

USING YOUR SAUNA HEATER

Your sauna has been paired with an appropriately sized heater to consistently achieve temperatures of 175°-185°F. You should expect your sauna to be at a useable temperature in 45-60 minutes.

You have the option to pour water onto the stones to generate steam. Please note, little water is required to achieve this. For most sauna users, a ladle full of water is sufficient. If too much water is poured onto the stones, it will drip out the base of the heater and should be wiped up with a towel after the sauna session.

If you'd like to continue the sauna session after the automatic one-hour shutoff, simply restart the heater.

Consult your sauna manual for the typical sauna routine and enjoy!

TROUBLESHOOTING

⚠ DANGER

- Turn off power to heater at breaker before performing maintenance on the 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 timer 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.

Check the position of the temperature sensor (refer to image 23). If it is too high in the sauna or too close to the heater, it will trigger a premature shutoff in your heater.

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 your heater no longer makes the loud “clunking” noise when turning the timer, turn off your breaker and use a small screwdriver to press the reset button under the heater. You can find this button in the cut-out on the bottom plate (33).



Image 33

If none of the above recommendations get your heater working, please email us at INFO@RATEOUTDOORS.COM to diagnose further.

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