Heater Model _____

Serial # _____

SCANDIA MANUFACTURING

Installation Guide

ULTRA-SAUNA HEATER

Proudly made in USA since 1964

Gas Heaters - 40,000-80,000 BTU

Installation Instructions

& User Manual



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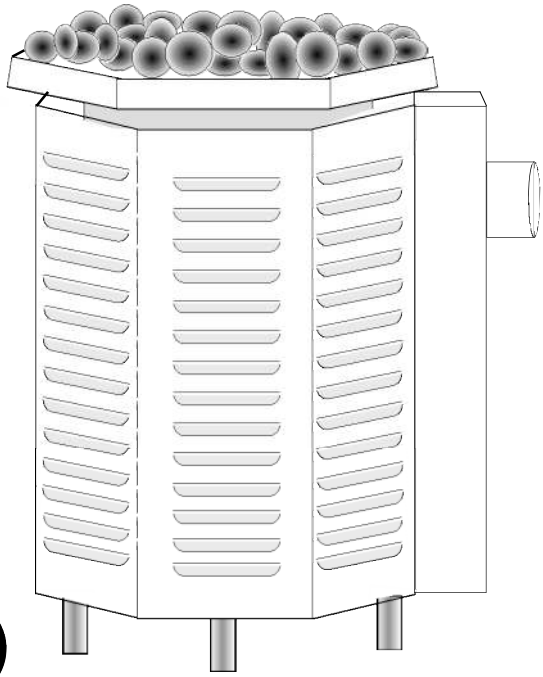
BEFORE YOU START PLEASE READ CAREFULLY

- Heater must be vented to the outside of the sauna. Please consult a licensed professional for ventilation requirements in your area.
- Heater and controls must be installed by a licensed professional
- Heater controls must never be installed inside the sauna room
- Heater controls should never be placed near water
- Heater must be installed according to local codes.
- Ensure all factory connections are tight. Wires may have come loose in shipping.
- Heater should not be operated without recommended amount of rocks
- Sauna door must always open outward.
- Sauna door can never include a lock.
- Sauna should be constructed of soft wood (i.e. clear western red cedar)
- Sauna room should never have tile walls or benches
- Do not treat or varnish sauna wood
- Use only Scandia high density sauna rocks
- The warning signs and sauna usage plaque must be displayed
- Sauna room sizing is based on standard 7 foot ceiling
- Do not touch the heater while in operation
- Do not cover the heater
- Never hose down the sauna
- Never leave children unattended
- Sauna bathing is not suitable for those with health problems
- Sauna room must be vented according to manufacturers specifications or Scandia installation instructions
- Heater guard must be installed

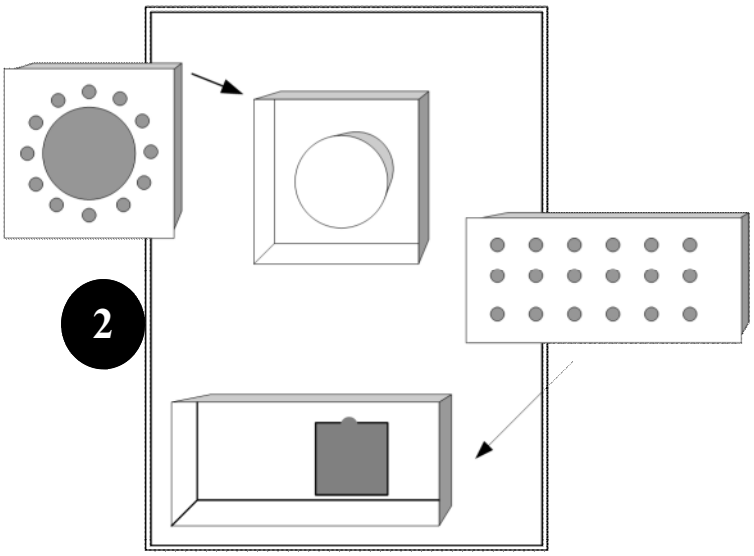
Heater Component List

1. Heater Body Unit
2. Back panel w/external through-wall covers
3. Stainless steel flashing (internal back panel cover)
4. Venting component option (flue cap or draft hood)
5. Complete burner assembly (natural gas or propane)
6. Control box with cover, wires, knobs
7. Imported high-density sauna rocks

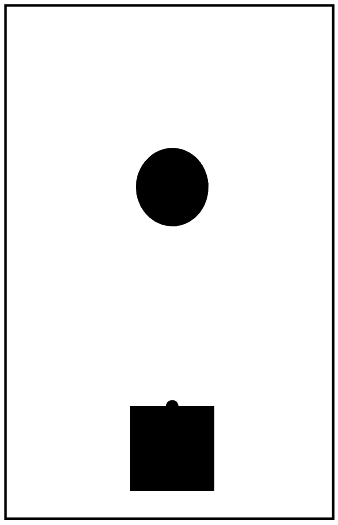
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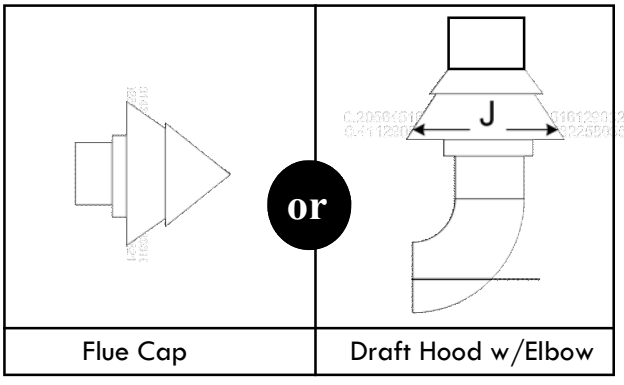
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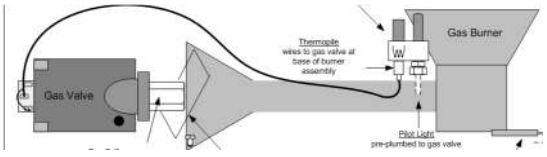
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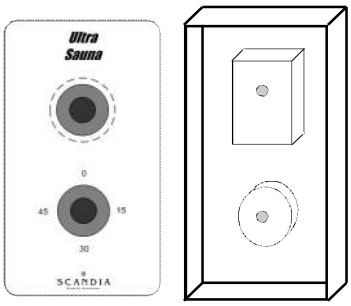
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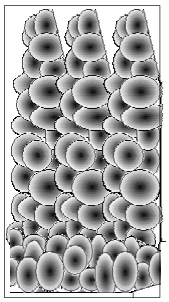


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Model F

7



YOUR HEATER SHOULD INCLUDE

- Control Panel
- Main Heater Unit
- Sauna Rocks
- Thermostat sensor wall cover and rock tray insert
- Installation Instructions
- Warning Signs
- Back panel assembly
- Back panel flashing
- Flue cap or elbow/draft hood set

HEATER SIZING

Ultra Sauna Gas Fired Heaters

Model	BTU Output	Minimum Room Size	Maximum Room Size
240	40,000 BTU	60 sq ft (5.57 sq m)	88 sq ft (8.15 sq m)
245	40,000 BTU	60 sq ft (5.57 sq m)	88 sq ft (8.15 sq m)
280	80,000 BTU	80 sq ft (7.43 sq m)	240 sq ft (22.30 sq m)
285	80,000 BTU	80 sq ft (7.43 sq m)	240 sq ft (22.30 sq m)

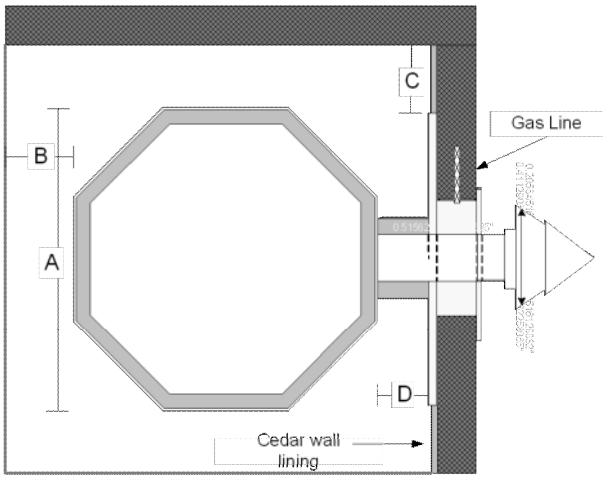
Sauna Heater Sizing

- Minimum and maximum room sizes are based on a 7 foot ceiling height
- Properly sized heater will bring room temperature to desired level in approximately 30 to 60 minutes
- An undersized heater may experience instances of the heater unit overheating and a longer time to bring the room up to temperature
- The maximum room sized is based on the heater bringing the room temperature from 60 to 180 in 60 minutes
- Sauna room must be properly vented for heater to work effectively

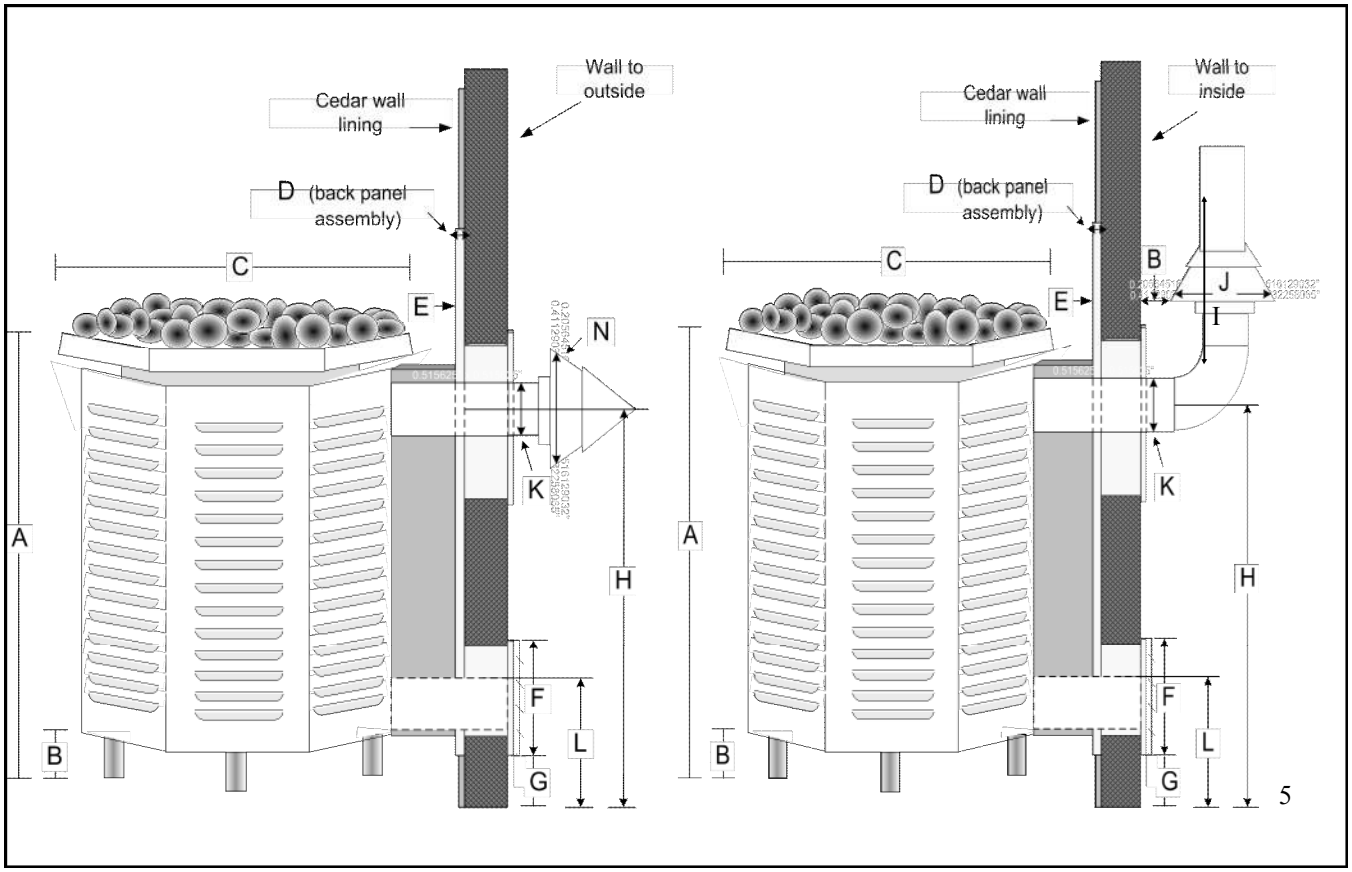
Rough-in Sizing guidelines

Note: Your Scandia Ultra gas sauna heater should be installed only by a licensed electrician and HVAC professional. Improper or unofficial installation will void warranty.

	40,000 BTU	80,000 BTU
A	18.5"	29"
B	8"	12"
C	7"	11"
D	2 1/2"	4"



Models	Heater		A	B	C	D	E	F	G	H	I	J	K	L	N
240 & 245	40,000		28"	4"	18 1/2"	2 1/2"	20 x 32	8 1/4" x 13 1/4"	3 1/2"	24 1/2"	14"	7"	4"	10 1/4"	8"
280 & 285	80,000		40"	6"	29"	4"	33" x 45"	8 1/4" x 16 1/4"	5 1/2"	32"	20"	12"	6"	12 1/4"	14"



Rough-in control box and interior back panel

40,000 BTU Heater (240/245)

Installing the back panel

- Back panel should be installed when sauna room is framed in prior to the finishing steps of the sauna room
- Back panel is mounted directly to the face of the studs
- Insulate area between back panel and exterior wall in accordance with local codes
- Centerline of the flue opening must be a minimum of 17 1/2” from the side wall.
- Metal tabs at the bottom of the back panel must rest on the finished floor.
- If the interior wall material is more than 3/4” thick spacers should be placed between the stud and the back panel
- Adjust intake box and flue collar to wall thickness. Walls thicker than 5 1/2” will require extensions

Installing the control box

- Control box should be installed when sauna room is framed in prior to the finishing steps of the sauna room
- Control box is mounted to the studs facing outside the room at the farthest point away from the heater
- Control box should be 48” from the floor on center
- Place a nail 10” below the interior ceiling on the stud facing the sauna room. String a pull wire from the nail to the control box.
- 25 ft of low voltage two lead wire is supplied in the control box. Run this wire from the control box to the heater intake box and through the opening in the side of the box

80,000 BTU Heater (280/285)

Installing the back panel

- Back panel should be installed when sauna room is framed in prior to the finishing steps of the sauna room
- Back panel is mounted directly to the face of the studs
- Insulate area between back panel and exterior wall in accordance with local code
- Centerline of the flue opening must be a minimum of 26 1/2” from the side wall.
- Metal tabs at the bottom of the back panel must rest on the finished floor.
- If the interior wall material is more than 3/4” thick spacers should be placed between the stud and the back panel
- Adjust intake box and flue collar to wall thickness. Walls thicker than 5 1/2” will require extensions

Installing the control box

- Control box should be installed when sauna room is framed in prior to the finishing steps of the sauna room
- Control box is mounted to the studs facing outside the room at the farthest point away from the heater
- Control box should be 48” from the floor on center
- Place a nail 10” below the interior ceiling on the stud facing the sauna room. String a pull wire from the nail to the control box.
- 25 ft of low voltage two lead wire is supplied in the control box. Run this wire from the control box to the heater intake box and through the opening in the side of the box

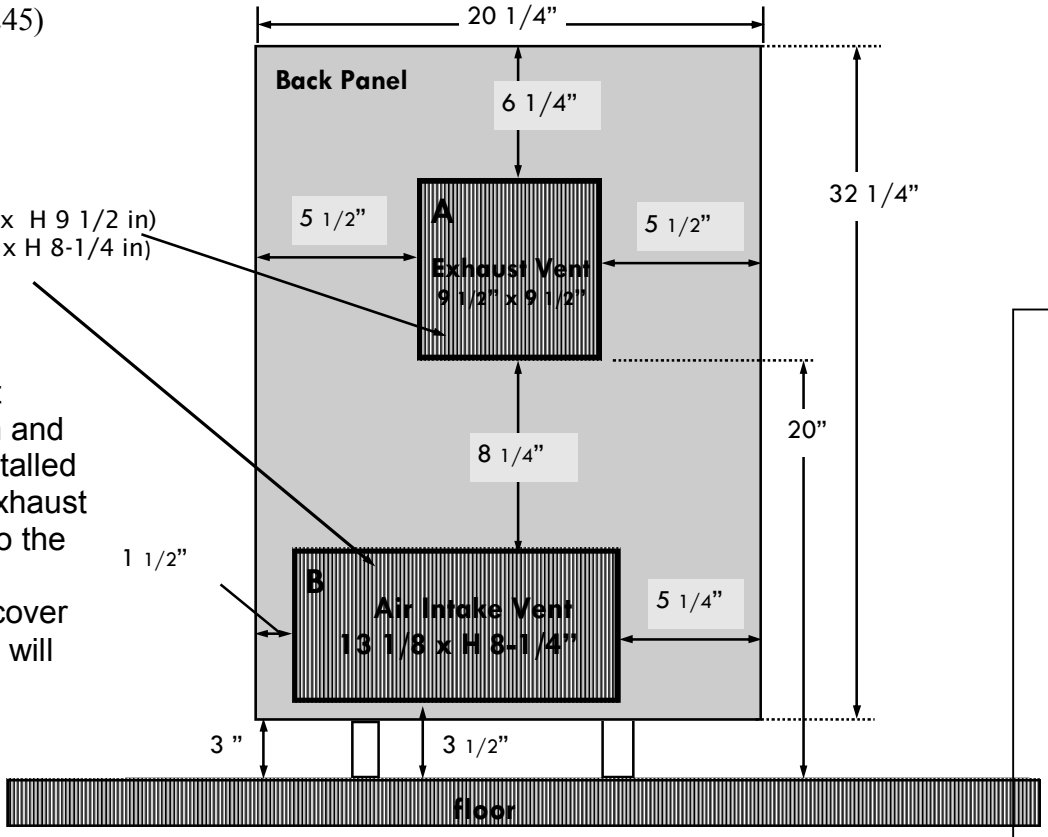
Exterior Back Panel Rough-in

40,000 BTU Heater (240/245)

Through-wall rough-in.

A) Exhaust vent (W 9 1/2 in x H 9 1/2 in)
B) Intake vent (W 13 1/8 in x H 8-1/4 in)

After intake and exhaust openings are roughed in and interior back panel is installed place flue collar in the exhaust vent opening adjusting to the wall thickness
Repeat with intake box cover
Walls thicker than 5 1/2" will require extensions

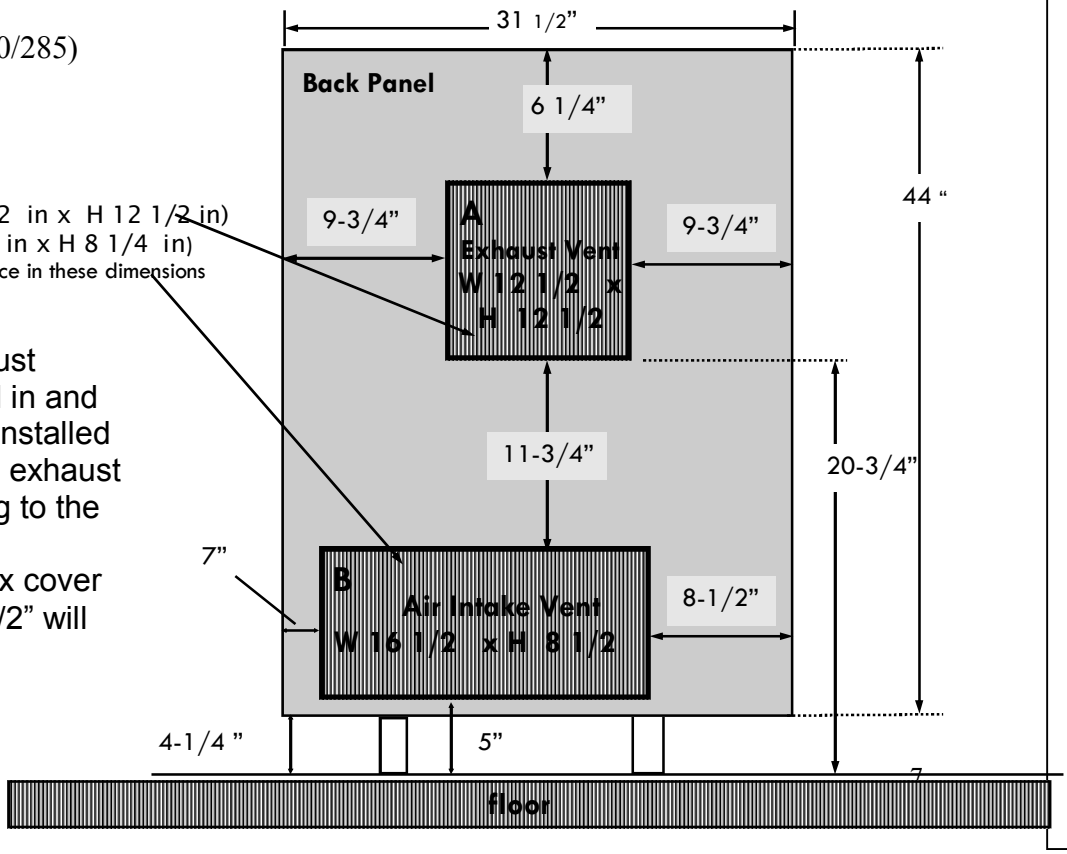


80,000 BTU Heater (280/285)

Through-wall rough-in.

A) Exhaust vent (W 12 1/2 in x H 12 1/2 in)
B) Intake vent (W 16 1/4 in x H 8 1/4 in)
C) *Please allow 1/4" tolerance in these dimensions

After intake and exhaust openings are roughed in and interior back panel is installed place flue collar in the exhaust vent opening adjusting to the wall thickness
Repeat with intake box cover
Walls thicker than 5 1/2" will require extensions



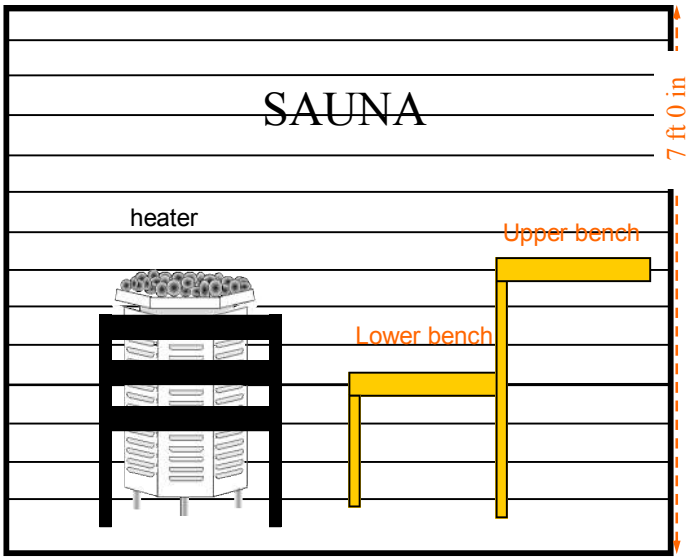
Finishing the sauna room

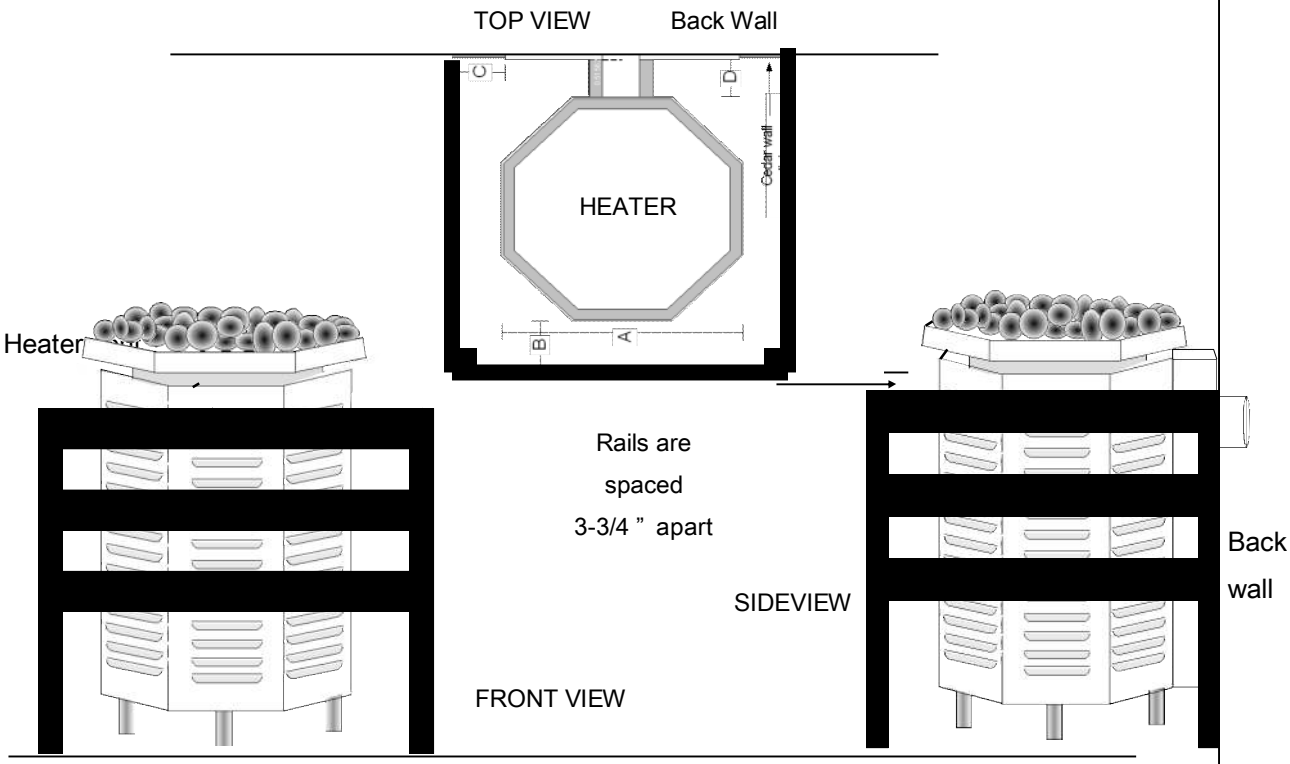
Finish

1. Insulate the space between the backpanel and the exterior wall per local codes
2. Ensure wall material rests behind the lip on the back panel
3. Place 1” fiberglass insulation against the interior side of the back panel
4. Remove paper from stainless flashing and start screws to galvanized (do not tighten)
5. Remove butterfly nut from bottom of intake box and slide burner assembly out of the unit.
6. Slide heater into place, guide insulated high-limit wires through the hole on the intake bracket. Secure heater to stainless steel flashing with two screws.
7. Tighten screws on the corners of the flashing.
8. Slip burner inside heater through the intake box allowing the burner lip to fit under the burner bracket. Replace the butterfly nut and screw to secure the burner.
9. Place caution sign on flashing above heater.
10. Carefully uncoil the thermostat probe and using the pull wire previously placed gently pull the probe into the sauna room.
11. attach the thermostat probe ten inches below ceiling as far away from heater as possible. The probe must be placed horizontally in the provided thermostat probe cover.
12. Install heater guard rail.

	Chassis	**240/245**	**280/285**
A	Width Of Heater Shell	18 1/2”	29”
	Wall to Face of Heater	21”	33”
B	Side of Heater to Wall (Min.)	8”	12”
	Height of Heater Shell	28”	40”
	Wall to Inside of Guard (Min.)	29”	41”
	Floor to Bottom of shell	4”	6”

Scandia Ultra-Sauna Heater Guard Rail





Components for 3-sided heater guard:

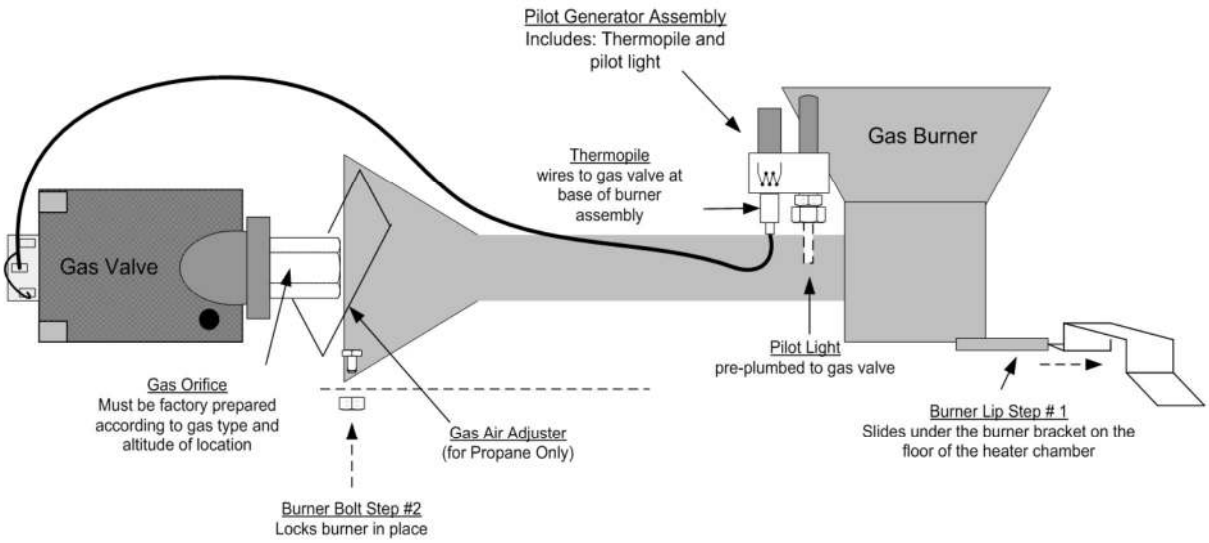
- 2x 2x2 corner posts / legs
- 3x 1x4 rails long piece rails for front
- 6x 1x4 short piece rails for each side
- 2x Wall brackets
- Misc. screws

** 2-sided heater guard will have 1 post and one side only.**

Heater guard rail installation:

- All components come ready to be assembled
- Observe distances around heater for guard rail, walls, benches and other obstructions
- Follow the heater manufacturer's clearances recommendations.
- Do not cut down heater guard to fit!

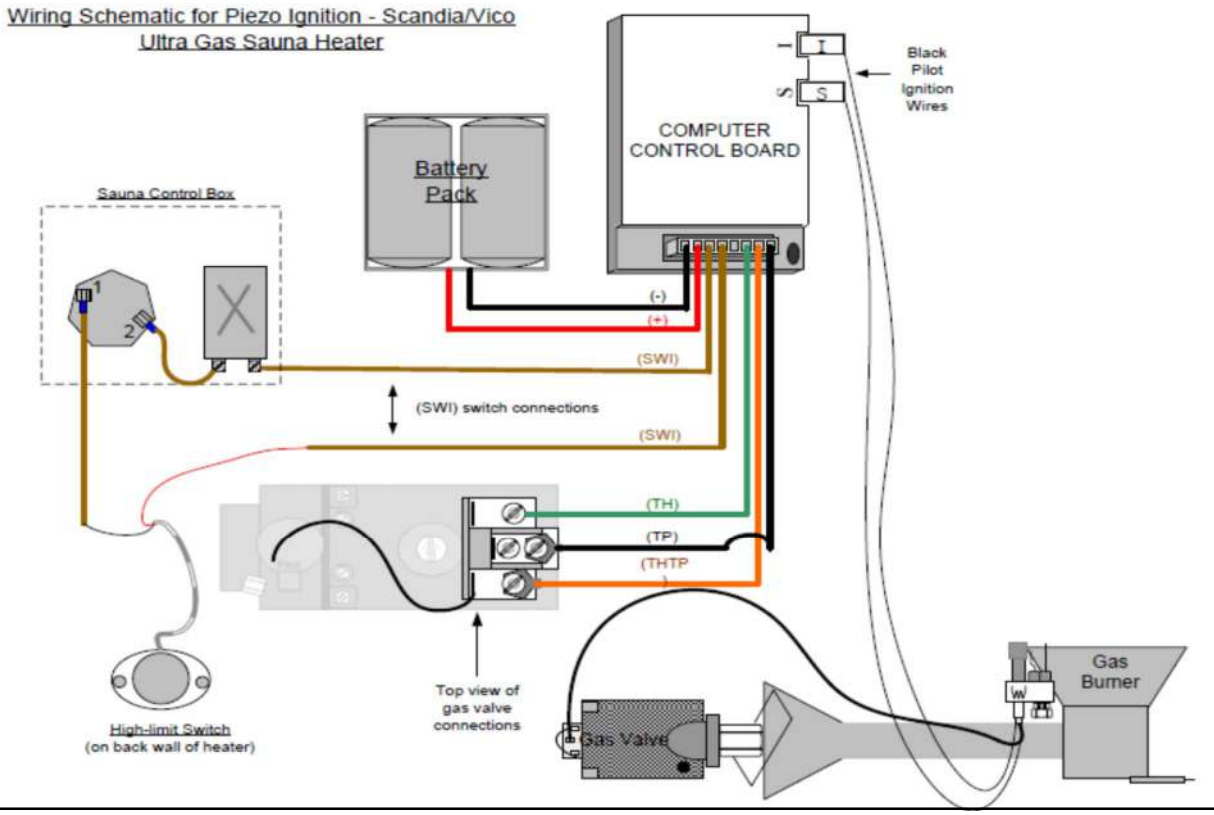
Gas Burner Overview - Standing Pilot



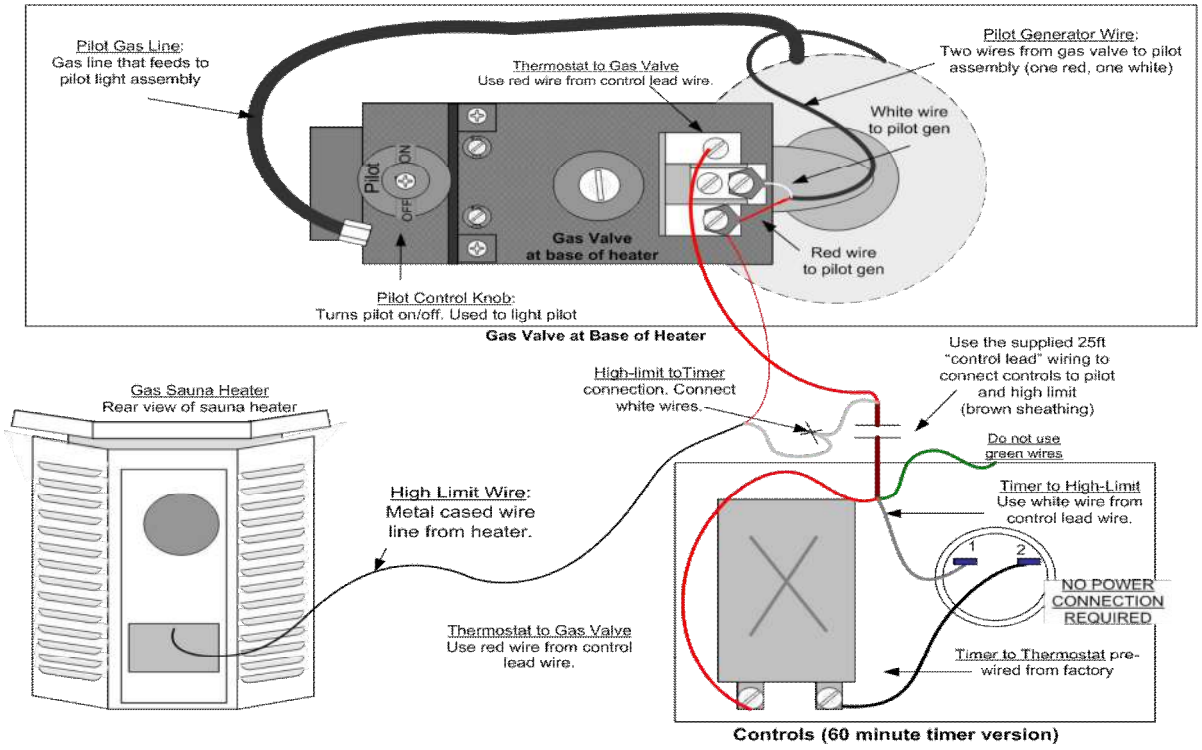
Burner Installation

1. Burner lip must be inserted into the burner bracket on the inside base of the heater chamber.
2. Bolt the burner to the intake vent floor - use the pre-drilled hole.

Piezo Ignitor Overview



60 Minute Control Wiring Overview



24 Hour Control Wiring Overview

