

INSTALLATION GUIDELINES HEAT/STOVE UNIT

IT IS UNLAWFUL TO INSTALL THIS UNIT WITHOUT FIRST OBTAINING A PERMIT FROM THE LOCAL ELECTRICAL INSPECTION AUTHORITY

Sauna heater controls enclosure box and contactor enclosure box are NOT supplied with the heating units.

Control Box:

3.5" deep x 3.75" high x 5-19/32" wide.
Volume (63 Cu.in.)

Contactor Box:

min 6" wide x 6" high x 3" deep
Volume (108 Cu.in.) minimum

All electrical wiring between sauna heater, high power controls, and magnetic contactor must be through a liquidtight metal conduit raceway.

The liquidtight metal conduit must be CSA or UL certified and labelled with the following specifications:

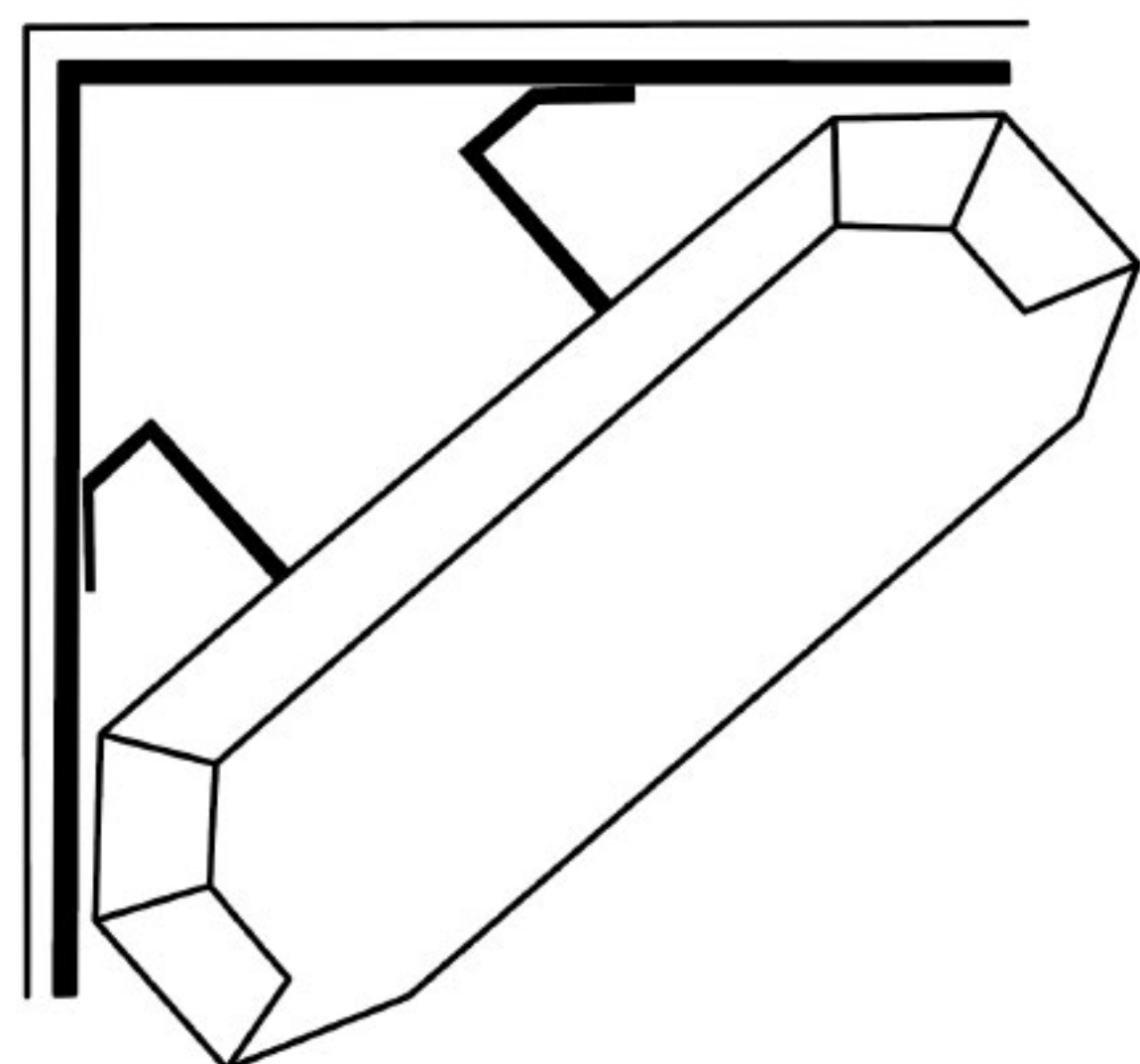
- 105C/221F Dry Temperature Rating
- Adequate for 600 volt and lower circuits
- Hazardous location per NEC 501
- In compliance with UL 360
- In accordance with Article 350 of National Electrical Code
- CSA/UL Certified & Labelled on Conduit

All saunacore controls must only be used with saunacore sauna heaters. They are certified as a set. If the sauna controls are used with another brand sauna heater, then the control and heater must be re-evaluated.

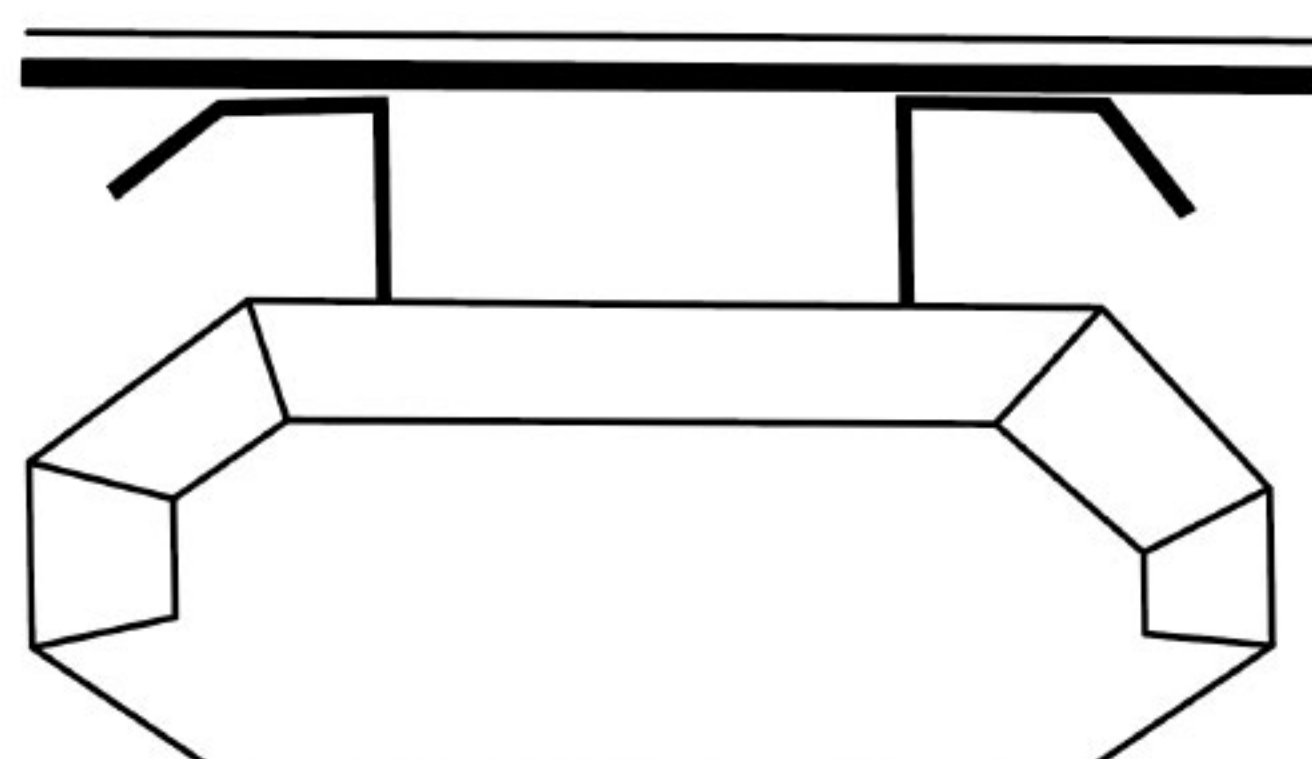
The total connected load should not be more than 80% of the rating of the overcurrent devices.

FIGURE 1
TOP VIEW OF HEATER

CORNER MOUNT



FLAT MOUNT



INSTALLATION INSTRUCTION FOR ALL SAUNACORE KW HEATING UNITS

SAUNACORE KW is installed in a corner of the Sauna room or on the straight wall by means of two mounting brackets (see illustration).

The unit should be placed 2" inches (minimum) from the floor, and not closer than 45 inches to the ceiling.

Lift the unit 2 inches (minimum) from the floor, hold it against the corner or straight wall and mark the location. Fasten the brackets with 1-1/2" mounting screws supplied. Be sure that the mounting screws are fastened not only through the soft wood lining of the sauna room but also into a solid piece of strapping, 2"x 4" etc., to hold the weight of the unit (approximately 50lbs.with the rocks).

First perform the electrical hook up. CAUTION: This work should be done by a Licensed Electrician. Then slide the unit back onto the brackets. The Saunacore heating units that do not have a control built in should mount the control box on the outside wall of the sauna room beside the door. The thermostat sensor bulb only, is to be located inside the sauna room and is to be mounted on the ceiling above the SAUNACORE heater. For electrical hook up follow the wiring diagram. This work should be done by a Licensed Electrician only.

Do not install a Showerhead or water spraying device above the heating unit.

All wiring to the SAUNACORE heater must be routed away from any direct radiation from the SAUNACORE Heating unit, and be made with liquid tight conduit.

SAUNA ROCKS (STANDARD, SPECIAL EDITION, STEAM VAPORIZOR MODEL)

After installation of the SAUNACORE Heating unit, carefully place all the igneous Sauna rocks which are supplied onto the rock basket at the top of the sauna stove. Rocks do not make contact with heating element

THIS UNIT MUST BE OPERATED WITH THE ROCKS IN PLACE

SAUNA ROCKS (Ultimate Models)

Placement of Sauna Rocks

Do not operate the sauna heater without the stones. Use only the stones that are supplied with the sauna heater. Wash stones with water and place them inside of the heater so that rocks are between and around the heating elements onto adjustable tray. Take care, however, not to force the rocks between the elements. Use smaller stones first and continue to fill the heater with larger stones. You may not need all of the stones. Make sure the adjustable rock tray is not lower than level 3 in the heater cavity

INSTALLATION GUIDELINES HEAT/STOVE UNIT

INSTALLATION INSTRUCTION FOR ALL SAUNACORE KW HEATING UNITS (CONT.)

STONES SHOULD BE PLACED LOOSELY WITHIN THE HEATER SO THAT THERE IS AMPLE HEAT CIRCULATION AROUND THEM. STONES SHOULD ALSO COVER THE HEATING ELEMENTS COMPLETELY! POURING WATER DIRECTLY ON EXPOSED ELEMENTS COULD GREATLY DECREASE THE LIFE OF THE ELEMENTS!

HEATER GUARD

A non metallic Guard shall be used and located not closer than 6" from the SAUNACORE Heater.

CAUTION

If the manually-resettable Temperature-limiting Control (Hi-Limit) trips frequently, a qualified serviceman should be contacted.

TEMP-LIMITING CONTROL

Each heater is equipped with a high limit control switch as a safety device. If an abnormal heating condition should occur, the heater will automatically shut off. The high limit switch will need to be reset manually before the heater will operate. To reset the high limit, locate the reset button (bottom front) and push inward until the contactor engages. If the reset button continues to trip, contact a qualified service person. If using GFI and tripping occurs heater must be operated first with non GFI breaker to bake elements (remove initial moisture that may cause GFI to trip) (*Hi-Limit Tripping Cause; Refer to page 5*)

Electrical Outlets

Electrical outlets are not permitted in a sauna room. If speakers are installed in a sauna, they should not be installed higher than 2 feet from the floor and should be located away from the sauna heater.

Heater Guard

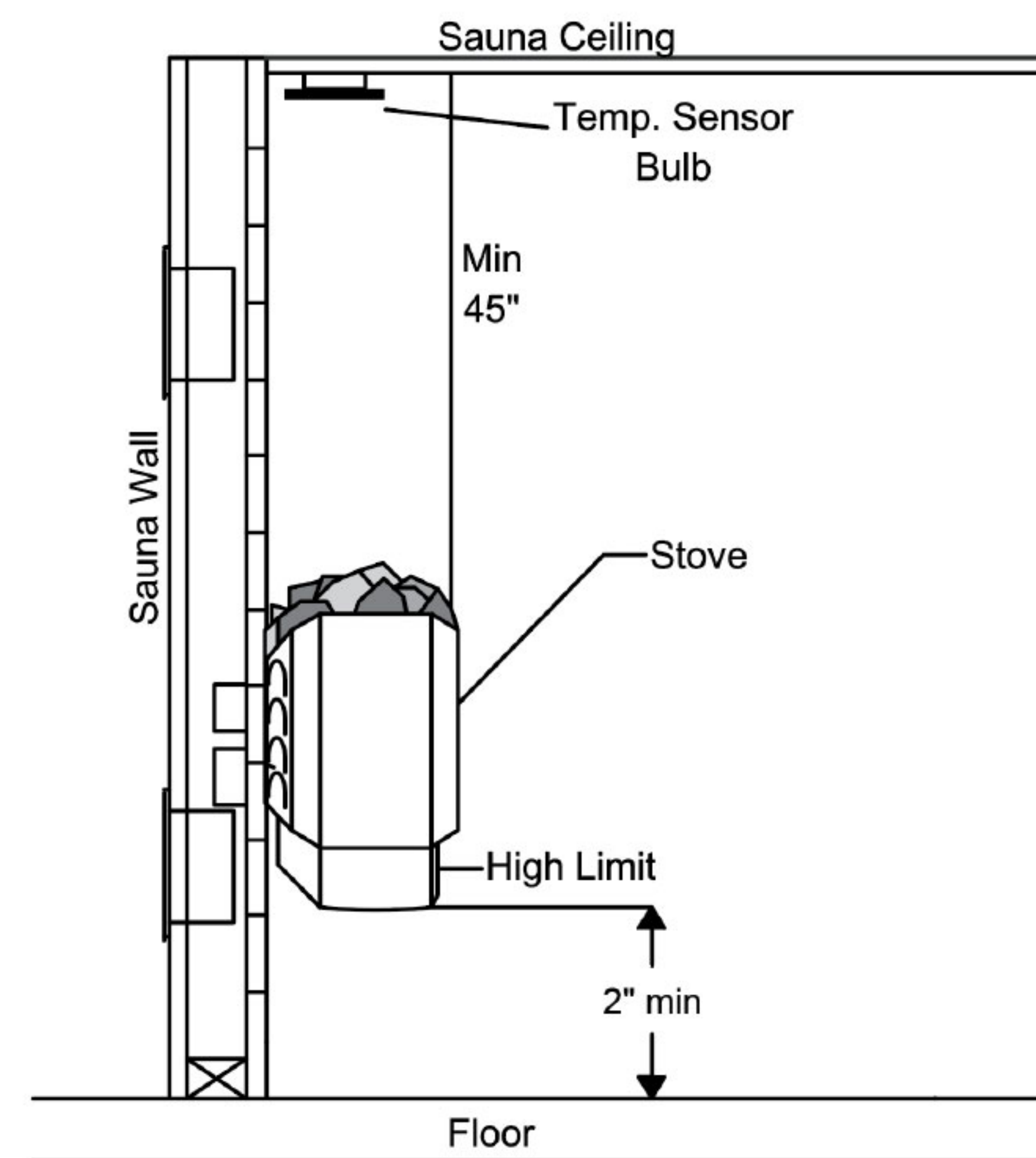
A heater guard rail is necessary to protect the sauna bathers from the hot surfaces of the sauna heater. The guard rail should be attached to the wall and should not be placed higher than the top of the heater, below the rock line. STD(HD) & ULTC6 (ED); The heater guard must extend up to ceiling (Fig. 3)

WARNINGS!

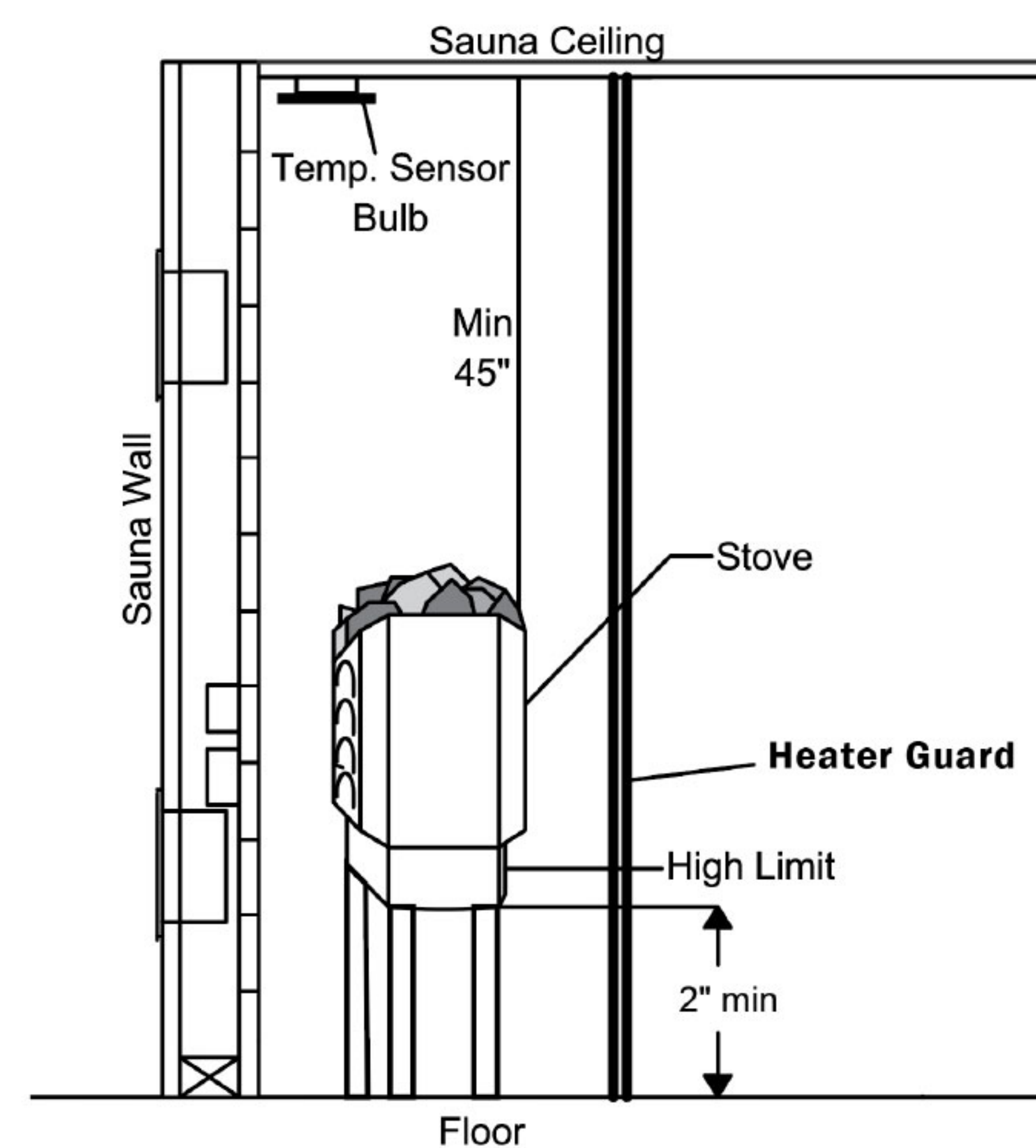
- Do not smoke, use alcohol, or exercise in the sauna.
- Do not exceed 30 minutes in the sauna at one time as excessive exposure can be harmful to your health.
- Persons in poor health should consult a physician prior to using the sauna.
- Do not place any combustible material on or over the sauna heater.
- At no time should towels, bathing suits, buckets or dippers or any other flammable material be placed on or over the heater.
- Use only clean tap water on the sauna stones. Do not use any chemically treated water (such as spa or pool water) on the heater at any time. Use of chemically treated water can result in rapid oxidation of the heater components, voiding warranty.

Note: Warranty is void on Saunacore heaters and controls if the installer or electrician fails to follow the necessary wiring information as provided in this wiring diagram or fails to follow any and all applicable codes pertaining to the installation of this product.

**FIGURE 2
SAUNA ROOM
STD, SE, SV, ULT MODELS**



**FIGURE 3
SAUNA ROOM
STANDARD HD & ULT C6 +1
(applies to Canadian application)**



INSTALLATION GUIDELINES CONTROL OPERATING INSTRUCTIONS

SAUNACORE CONTROL UNIT: MERCURI

DISPLAY WINDOWS:

Left Window; *"Minutes" Time Display*

Right Window; *"Degrees" Temperature Display*

Signaling LED's:

C - Temperature is displayed in deg C

F - Temperature is displayed in deg F

Heat - Flashing means heater is on

Run - Sauna is during operation cycle

Aux - Auxiliary output is active

Pwr - Unit is connected to power source

Arrows Up and Down below "Minutes" window change period of the sauna cycle. Time can be adjusted between 1 to 60 minutes. It is time during which temperature inside sauna room will be maintained within set temperature +/- 3 deg C. If sauna is not during operation time can be adjusted up and down. During operation time can be only be adjusted down. Meaning operation period will be decreased.

Arrows Up and Down below "Degrees" window change target temperature of the operation cycle. Target temperature can be can be adjusted between 1 to 90 deg C (32 to 190 deg F). If sauna is not during operation temperature can be adjusted up and down. During operation temperature can be only be adjusted down. Meaning target temperature will be decreased.

During sauna operation degrees windows will show target temperature for 1 second and current room temperature for 3 seconds.

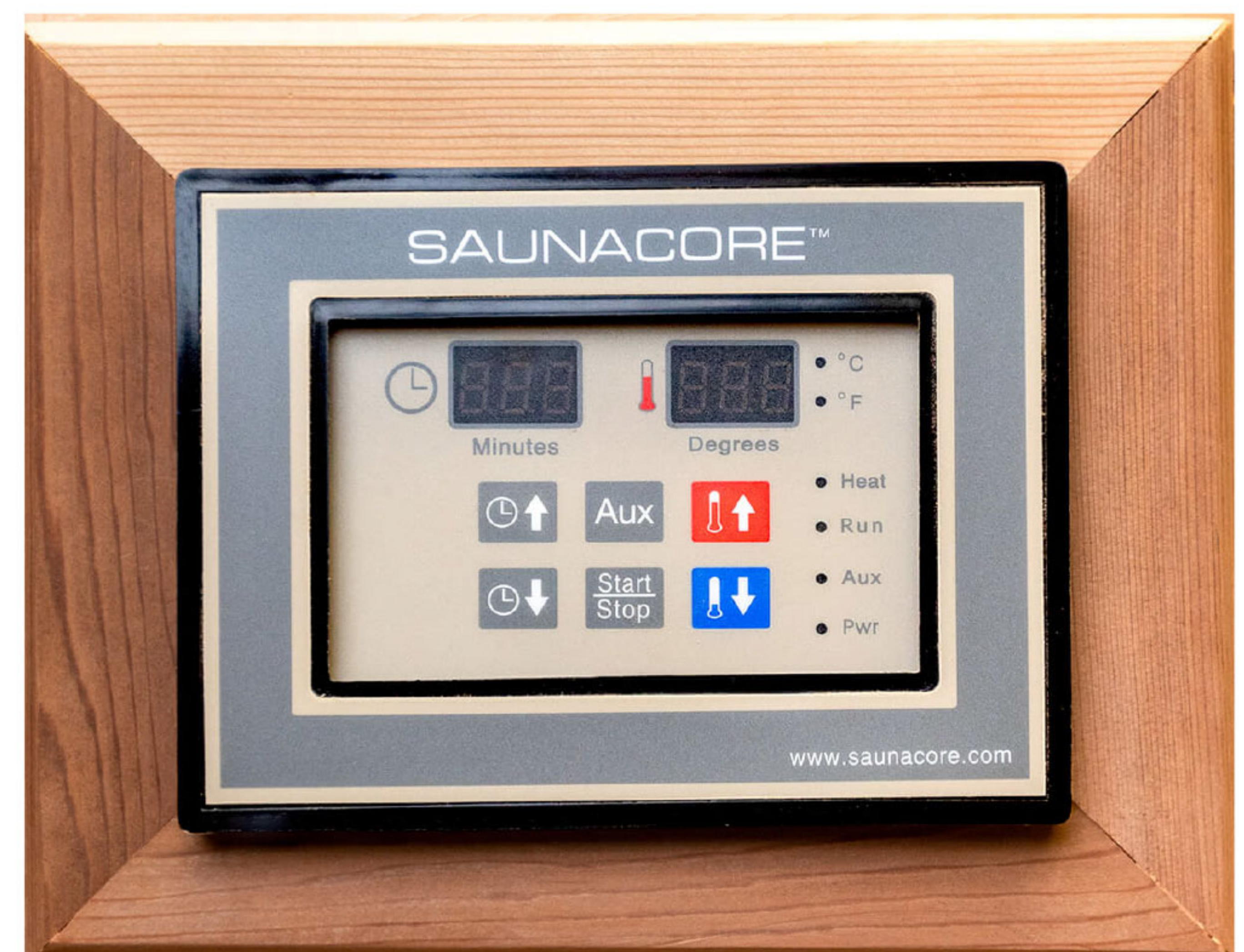
Unit is capable of displaying temperature both on deg C and deg F. In order to switch between units both down arrows need to be held continuously depressed for 10 seconds, until LED beside "degrees" windows changes, lighting up unit required units window (F or C). As default deg C are selected.

Initially for the first 5 seconds, when either *Up* or *Down* key is depressed and held, modified value (time or temperature) changes every second. If button is pressed continuously for longer than 5 seconds, changes are more rapid, every 0.5 second, and finally after 15 seconds every 0.25 second, allowing fast wide range changes.

Controller is capable of detecting faulty temperature sensor and overheating of the sauna room. Message 'ts' means temperature sensor problem, message 'too hot' means overheating of the room. In both conditions heater operation is disabled and sauna becomes not operational until first - fault condition is corrected and secondly unit is restarted by power cycling or error is cleared by continuously holding start button for 15 seconds.

Sauna operation is triggered by "Start" button. Unit will maintain set temperature for set period of time. Unit remembers last setting, so if no changes are made and start button is depressed and released, last used values are used. After set time expires unit remains in stand-by mode for 10 minutes displaying last time used values of time and temperature. After that goes to sleep mode, where only PWR LED is on and display is blanked. Unit wakes-up if any of the buttons is touched.

Unit is equipped with Aux output 120VAC 10 A. This output is controlled by AUX button and is not associated with sauna cycle. Can be used i.e. for lights, radio, fan etc. Once turned on will remain on as long as is not turned off by user, regardless of the state of the sauna room.



INSTALLATION GUIDELINES CONTROLLER WIRING GUIDELINES

**SAUNACORE CONTROL UNIT:
MERCURI DIGITAL CONTROL**

**CAUTION: THE MANUAL RESET LIMIT SHALL BE WIRED
IN THE CIRCUIT**

European Connection
(L2 = N - "Neutral")

For supply connections, use suitable AWG wires suitable for at least 90° C (190° F). (Use only copper wire).
Ground wire must be insulated.

Mercuri Control must be installed outside of the sauna room, into a 3 gang masonry electrical box.

Box Size: 3.5" deep x 3.75" high x 5-19/32" wide
Volume (63 Cu.in.)

When the magnetic contactor is used, it also must be installed into an appropriate metal electrical enclosure box outside the sauna.

Box Size: min 6" wide x 6" high x 3" deep
Volume (108 Cu.in.)

OPERATION

Set time and temperature. Temperature display window will alternate simultaneously from current room temperature and set temperature.

Note: All power supply wires from control box to stove must be protected by metal conduit.

Loose connections or connectors may cause electrical shortage. Make sure all connections and connectors are firmly secure.

FIGURE 1
MERCURI DIGITAL CONTROLS
(120v/240v 1 Phase 30 Amps + Under)

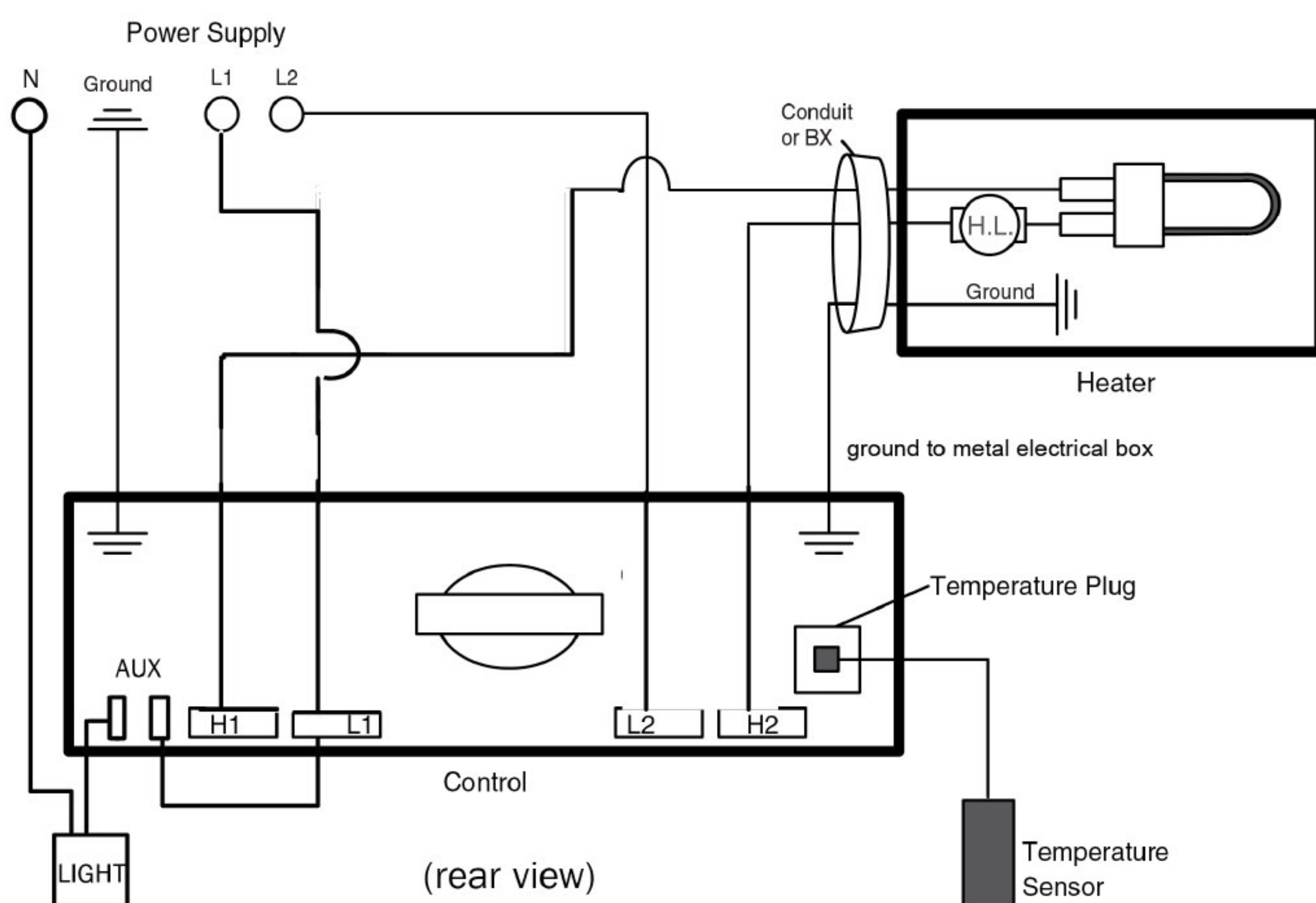
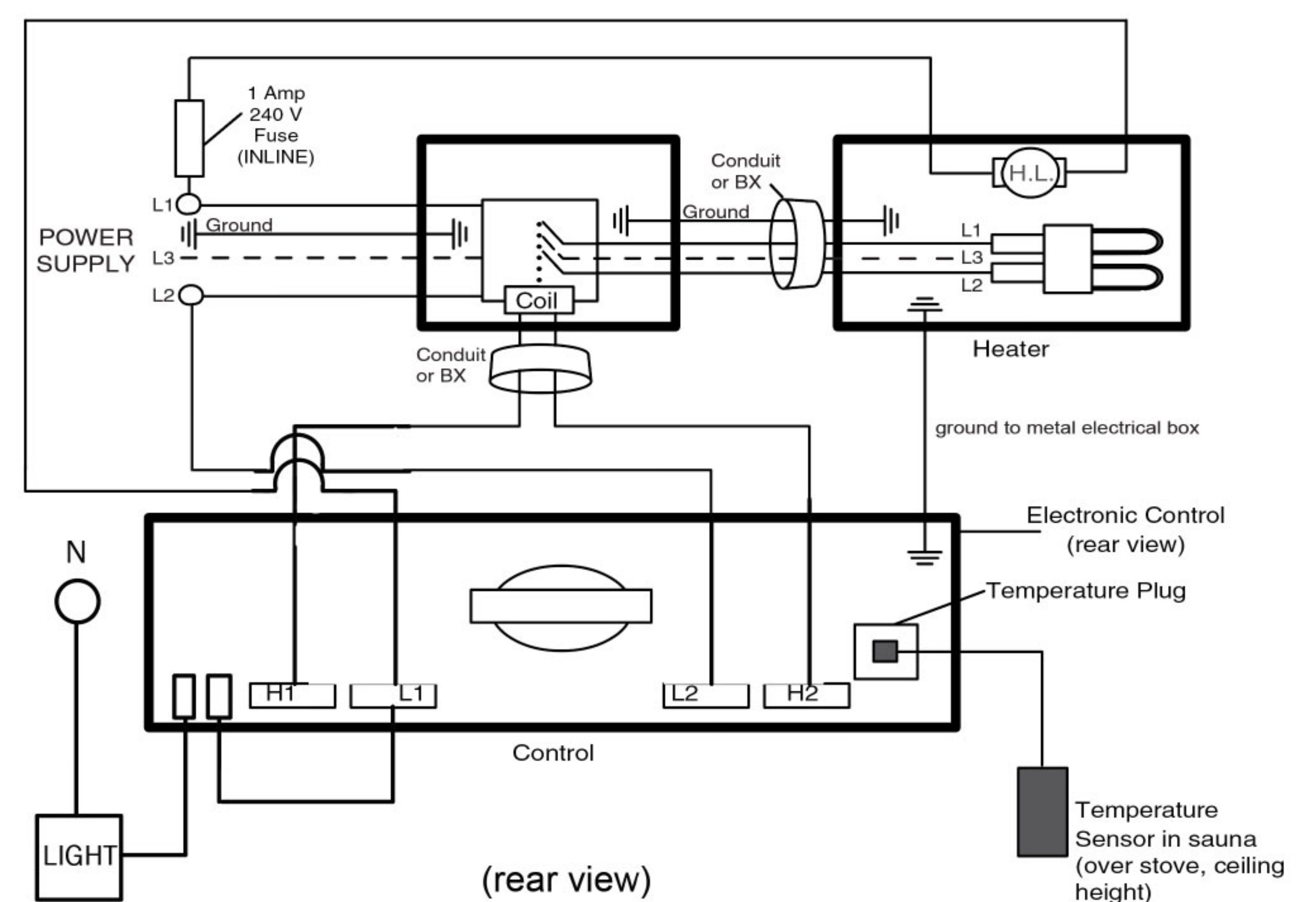


FIGURE 2
MERCURI DIGITAL CONTROLS
(240v/208v 1 Phase Over 30 Amps or ANY 3 Phase)



INSTALLATION GUIDELINES CONTROLLER WIRING GUIDELINES

**SAUNACORE CONTROL UNIT:
MERCURI DIGITAL CONTROL**

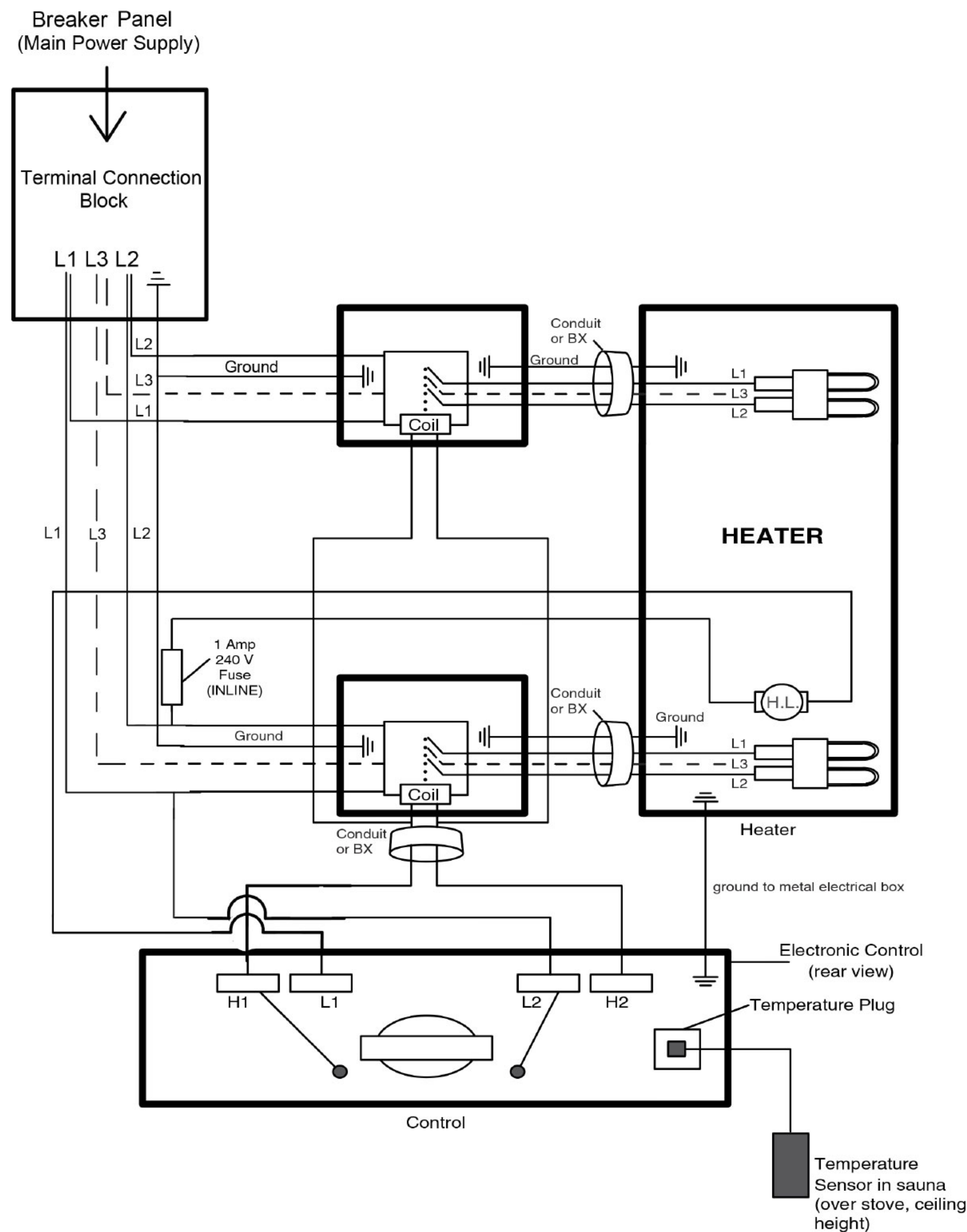
Mercuri Control must be installed outside of the sauna room, into a 3 gang masonry electrical box. When a magnetic contactor is used, it also must be installed into an appropriate metal electrical enclosure box outside of the sauna.

CAUTION: THE MANUAL RESET LIMIT SHALL BE WIRED IN THE CIRCUIT

Use copper wire only
Ground wire must be insulated

For supply connections, use suitable AWG wires suitable for at least 90° C (190° F).

FIGURE 3
MERCURI DIGITAL CONTROLS
(240v/208v 1 or 3 Phase 50 Amps and Over)
(applies to Canadian application)



INSTALLATION GUIDELINES MECHANICAL CONTROLS - WIRING (WALL OR BUILT-IN)

CAUTION: THE MANUAL RESET LIMIT SHALL BE WIRED IN THE CIRCUIT

European Connection
(L2 = N - "Neutral")

For supply connections, use suitable AWG wires suitable for at least 90° C (190° F). (Use only copper wire).
Ground wire must be insulated.

Mechanical control must be installed outside of the sauna room, into a 3 gang masonry electrical box.

When a magnetic contactor is used, it also must be installed into an appropriate metal electrical enclosure box outside the sauna.

(For control and contactor box sizes refer to page 4 of this manual)

Inline Fuse: 5 amp 240 Volts MAX
(Offers Coil Protection)

Note: All power supply wires from control box to stove must be protected by metal conduit.

Loose connections or connectors may cause electrical shortage. Make sure all connections and connectors are firmly secure.

FIGURE 1
MECHANICAL CONTROL

(120v/240v 1 Phase 30 Amps + Under)

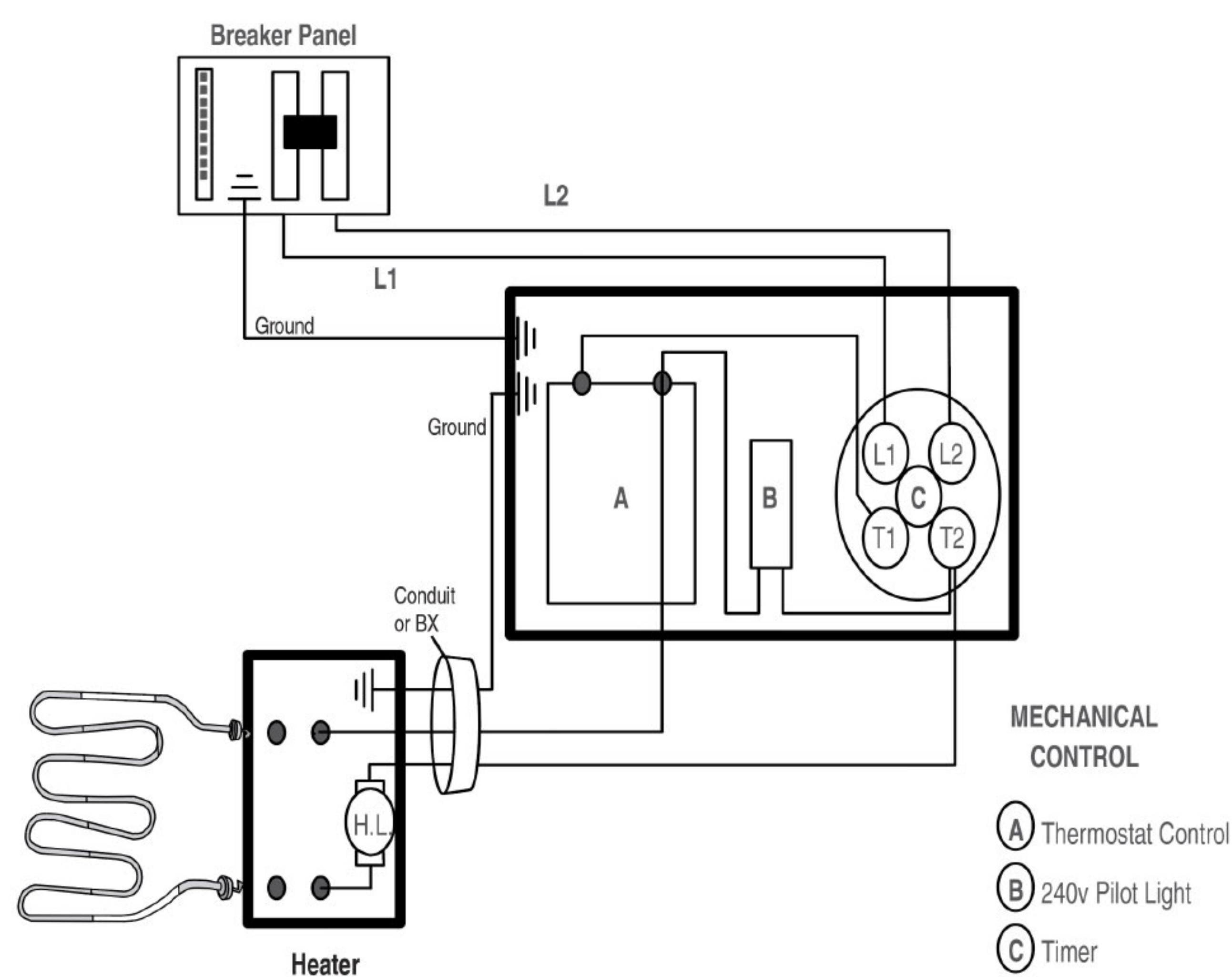
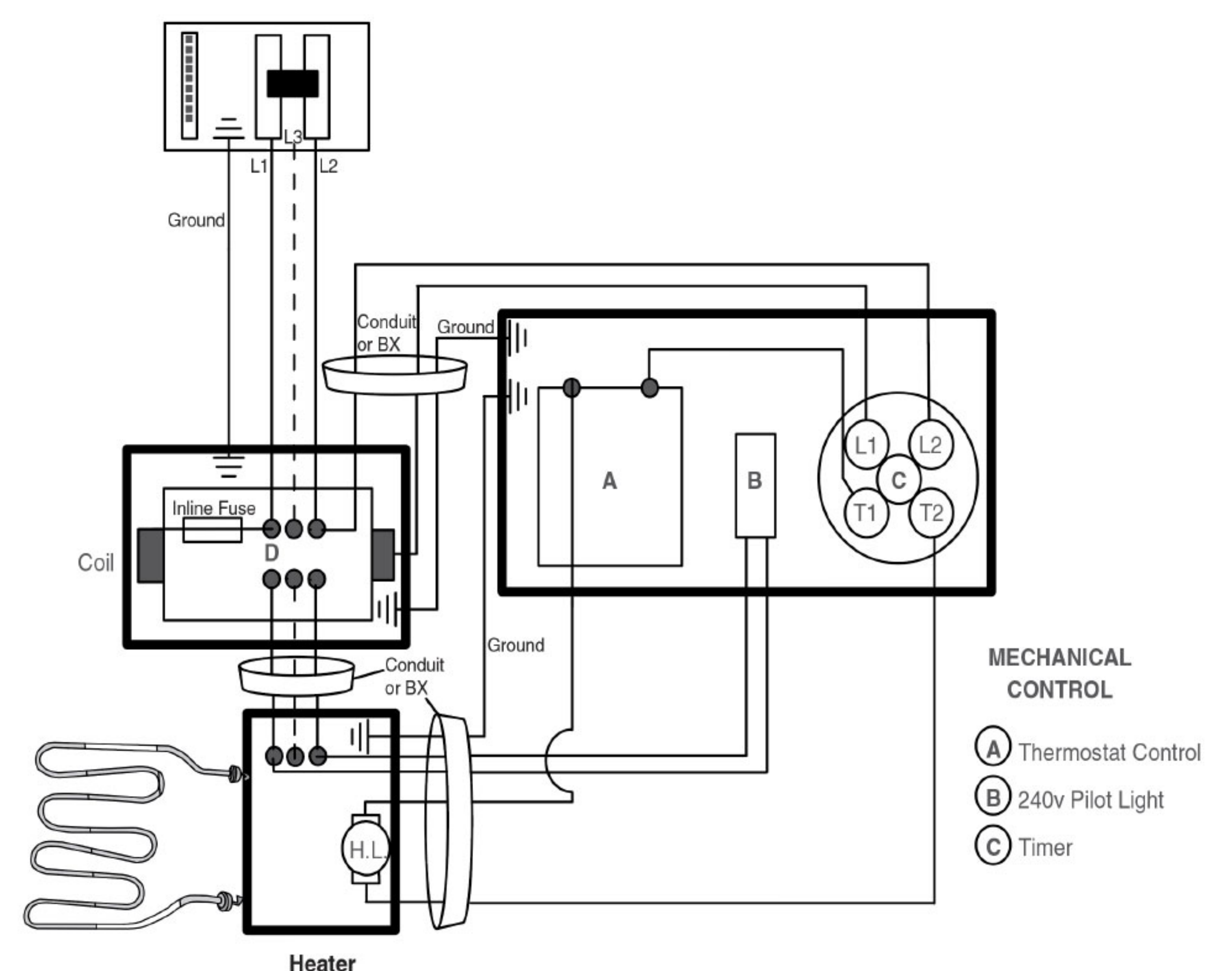


FIGURE 2
MECHANICAL CONTROL

(240v/208v 1 Phase Over 30 Amps or ANY 3 Phase)



INSTALLATION GUIDELINES MECHANICAL CONTROLS - WIRING (WALL OR BUILT-IN)

MECHANICAL CONTROL

Mercuri Control must be installed outside of the sauna room, into a 3 gang masonry electrical box. When a magnetic contactor is used, it also must be installed into an appropriate metal electrical enclosure box outside of the sauna.

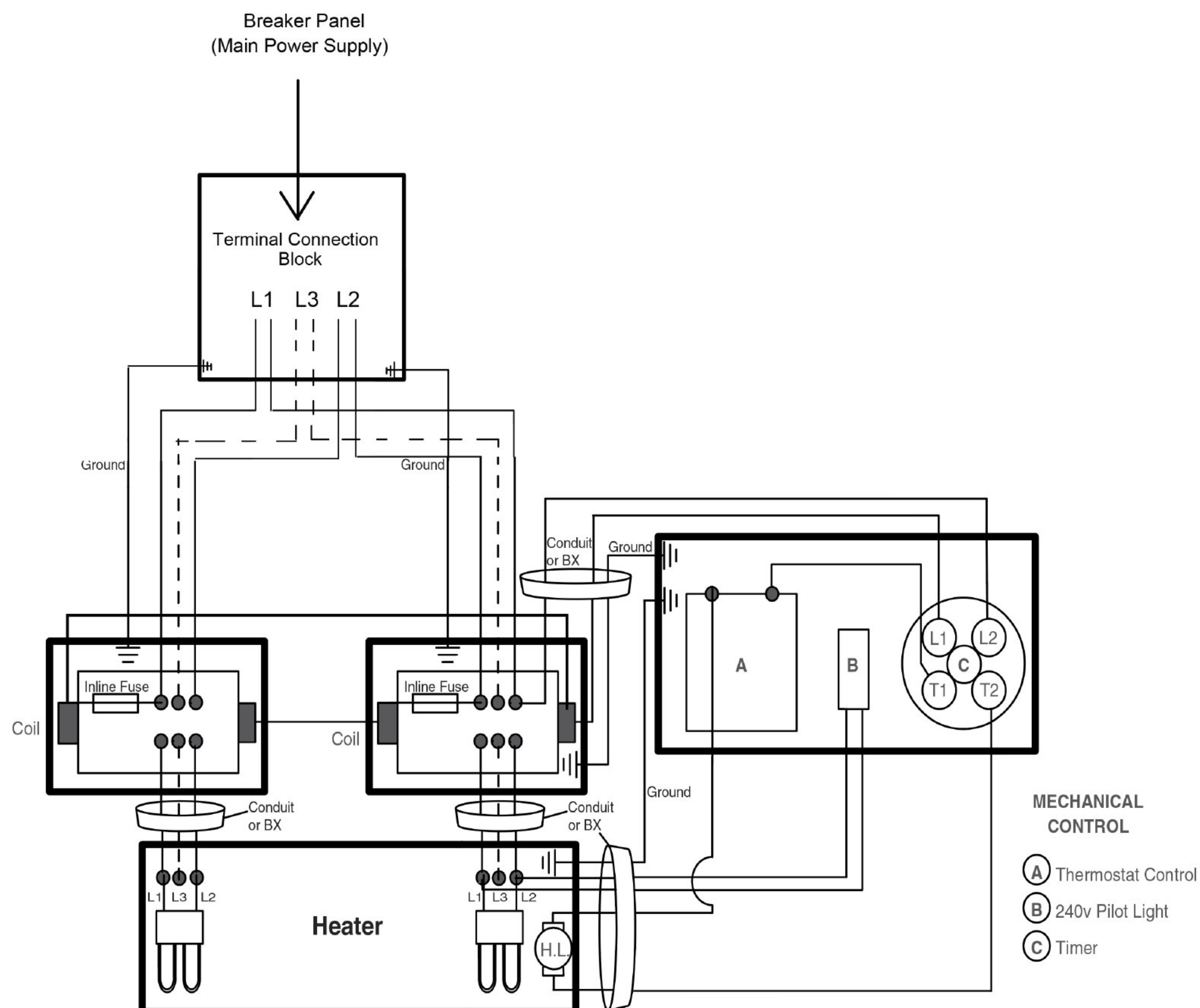
For supply connections, use suitable AWG wires suitable for at least 90 C (190 F).

CAUTION: THE MANUAL RESET LIMIT SHALL BE WIRED IN THE CIRCUIT

Use copper wire only
Ground wire must be insulated

FIGURE 3
MECHANICAL CONTROL

(240v/208v 1 or 3 Phase 50 Amps and Over)
(applies to Canadian application)



INSTALLATION GUIDELINES HEATER MOUNTING

A non-metallic guard rail must be away from the residential sauna heater models by a minimum of 4 inches, and the residential heater models must be minimum 4 inches away from any vertical surface. There must be a minimum of 45 inches clearance above the heater to the ceiling and a minimum of 2 inches above the floor.

FIGURE 1
STANDARD / SPECIAL EDITION /
STEAM VAPORIZER MODELS
Mounting Diagram for Residential Model

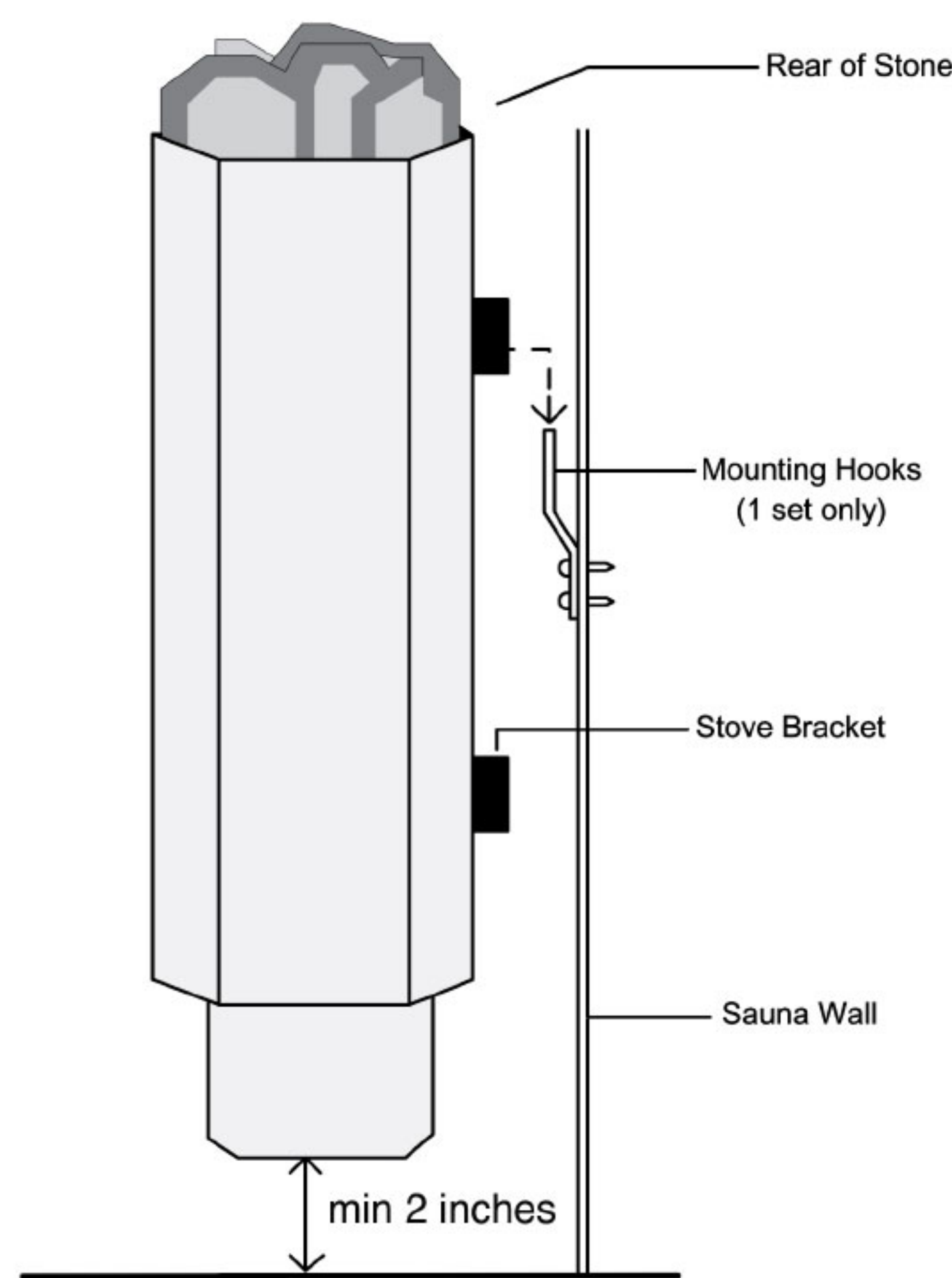
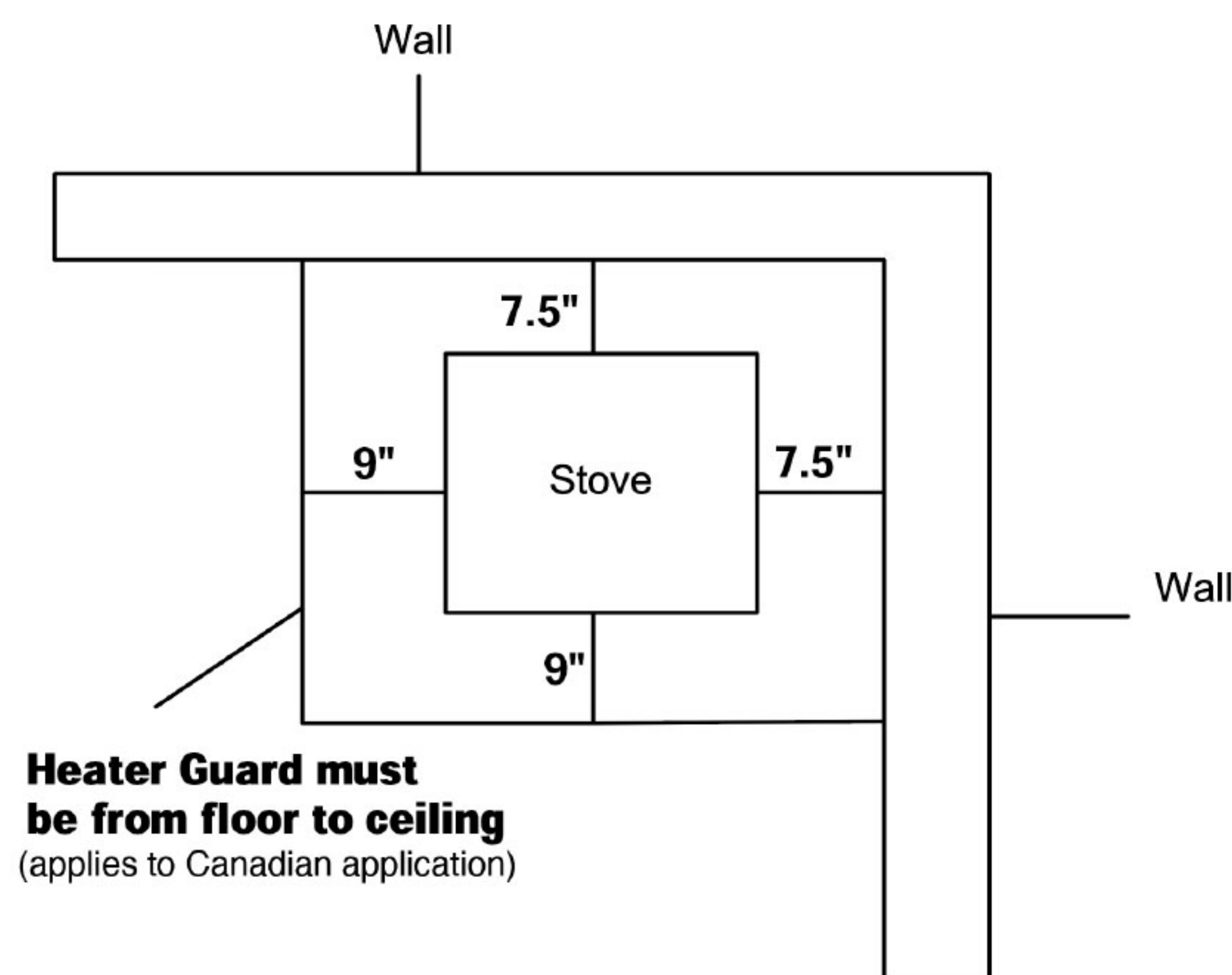


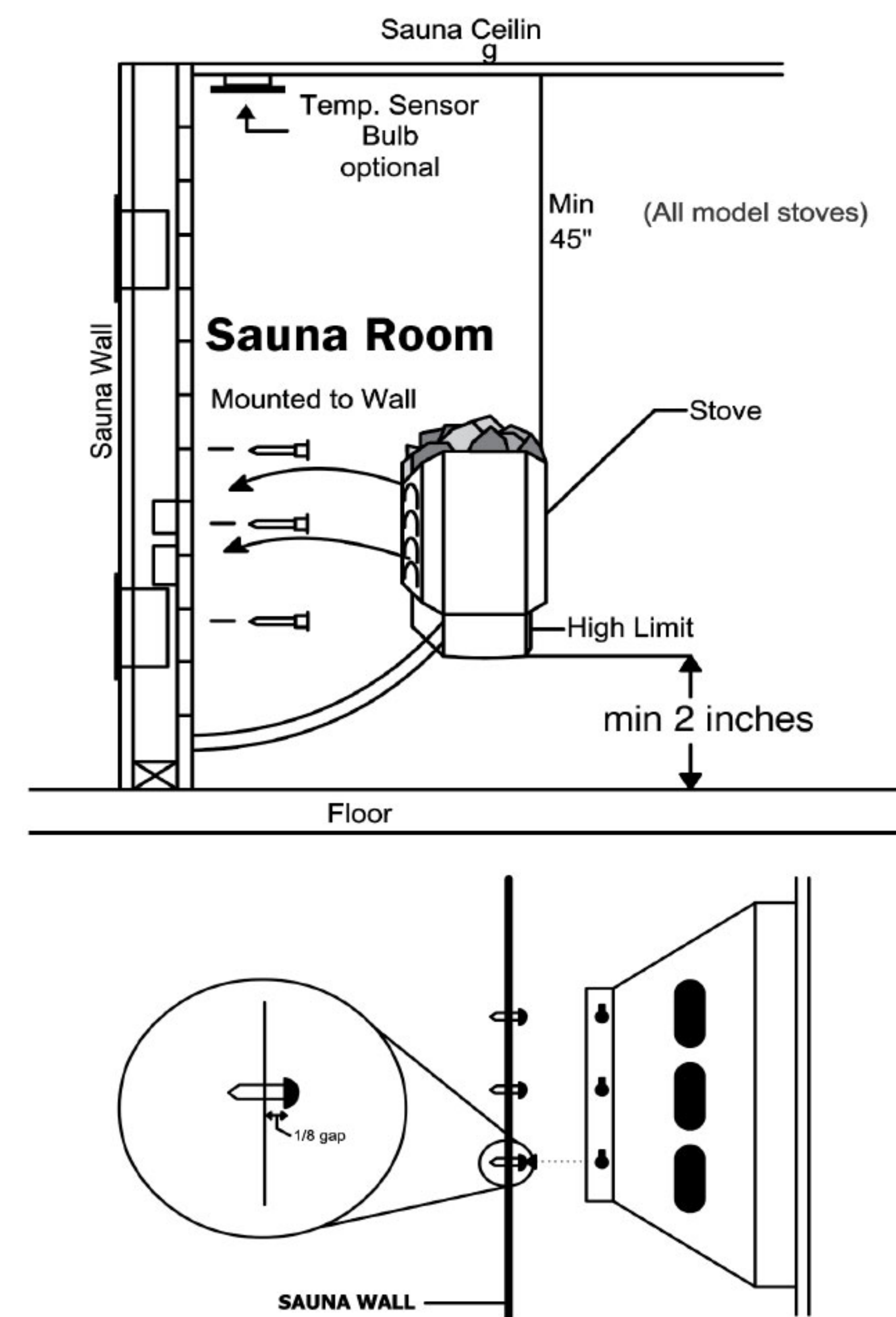
FIGURE 2
STANDARD HD & ULT C6+1



Stove must have:

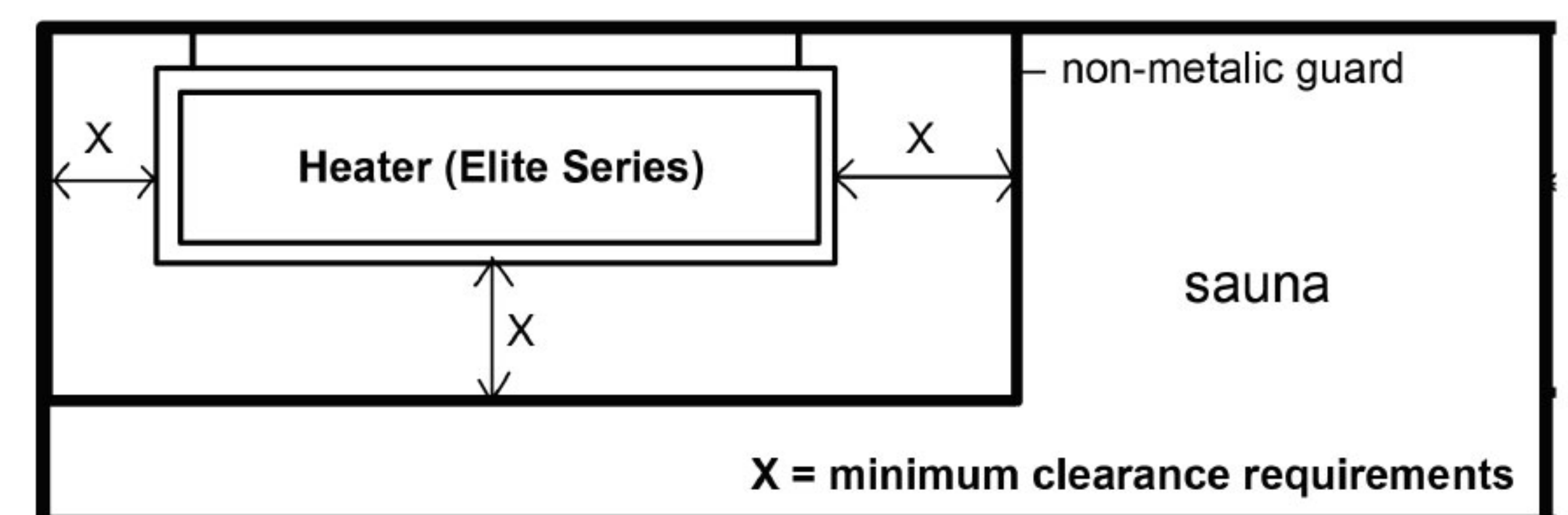
A non metallic guard rail must be away from sauna heater by a minimum of 9 inches, and the heater must be a minimum of 7.5 inches away from any vertical surface. There must be a minimum of 45 inch clearance from the top of the heater to the ceiling.

FIGURE 3
ULTIMATE RESIDENTIAL
Mounting Diagram

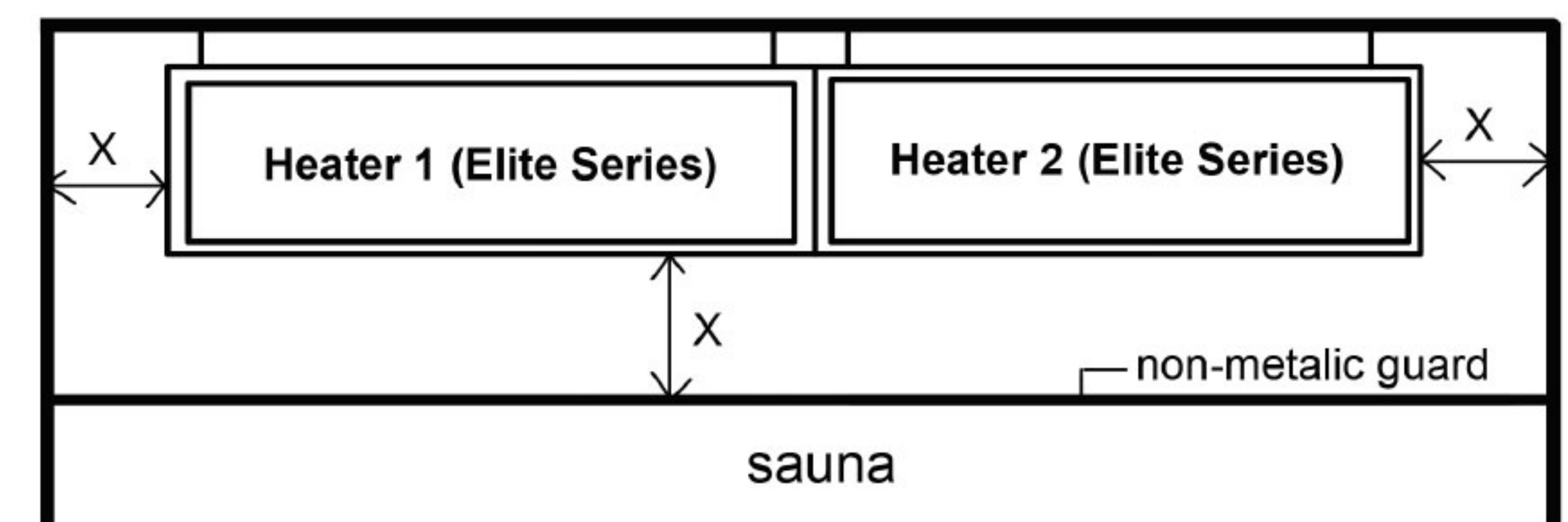


Elite series unit may be mounted side by side to make one complete long unit, but overall clearances stated above must be met for the multi assembled heaters set.

FIGURE 4
ELITE SERIES



6kw up to 10.5kw (X = 4 inches) - 12kw (X = 9 inches)



Stove must have:

A non metallic guard rail must be away from sauna heater 4 inches or 9 inches based on Kilowatt rating of the individual heater. There must be a minimum of 45 inches clearance from the top of the heater to the ceiling.