NIPPA

Sauna Stoves and Room Heaters

Since 1930

INSTALLATION and OPERATING GUIDE for LP or NATURAL GAS SAUNA HEATERS

Nippa Sauna Stoves
Beulah, Michigan 49617
Phone (231) 882-7707 www.nippa.com

Congratulations

On your purchase of a NIPPA gas sauna heater

Undoubtedly, you have given much consideration into your decision to buy a NIPPA sauna heater and everyone at NIPPA is proud to have a part in your family's future comfort. Pride in craftsmanship and engineering have made your sauna heater the finest product available today.

LP or natural gas is a clean burning fossil fuel. Gas is a very viable alternative to more expensive electric power and cleaner and more convenient than wood.

The NIPPA dealer in your community knows there is no substitute for quality, and you can place your confidence in his recommendation for the type of installation that will best serve your heating needs now, and in the many years to come.

We suggest you read through the Installation and Operating Guide and recommend a policy of SAFETY FIRST, before installing or operating your NIPPA LP or natural gas sauna heater.

You MUST consult a mechanical contractor or L.P./Natural Gas Professional

to assist you with installation of your gas heater.

Thank you for choosing a NIPPA sauna heater manufactured by Nippa Sauna Stoves, where old-fashioned quality is still our highest priority.

Nippa Sauna Stoves
8862 N US 31
Beulah, Michigan 49617
Phone (231) 882-7707

For further information on using your heater safely, contact the
National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02269-9101
http://www.nfpa.org/

Things to do before you call to troubleshoot on your Nippa Gas Sauna Heater. If you are having trouble with your stove, please refer back to these instructions and insure that everything has been checked by a mechanical contractor prior to calling us.

The two most common problems we troubleshoot with the Nippa Gas Sauna Heater is either lack of heat output or a sooty flame. We pride ourselves in ensuring our customers that every Nippa Gas Sauna Heater is fired and tested in our shop prior to shipping, which allows us to assure our customers that their gas burner is in proper working order.

The following is to assist you in installation with your mechanical contractor and also to save you from having to make costly revisions of improper installation after the fact.

Nippa Sauna Stoves state clearly in our owner's manual that you need to consult with a licensed Mechanical contractor for proper installation of your gas appliance.
THIS IS A MUST! Your warranty may be voided if your stove is not installed correctly.

Before you call for technical support make sure the following items have been checked.

1. Gas line sizing and the level of gas input to your heater from the gas source needs to be sized properly for the BTU requirements of your particular unit.

    a) The gas source for natural gas would be the gas meter on the outside of the building.

    b) The gas source for L.P. gas or Propane is the tank (or pig) serviced by your gas supplier.

    c) A major component of gas appliance installation is choosing the proper pipe size for adequate gas flow to the heater. This is determined by the length and size (inside diameter) of the gas pipe. Check with a contractor or gas supplier for the proper pipe size required for not only the *distance* from the heater to the source but also the *BTU requirement* of your heater from the source. Attaching to an existing line within the building could be detrimental to your new heater as well as your existing appliances by taxing the gas supply already in use.

    d) The gas pressure at your Nippa unit should be set while the gas burner is under fire. *This should be done by a licensed heating contractor or your local gas supplier*. Pressure of particular gasses may vary slightly in some areas but a good rule of thumb is 3 ½ inches of water column for natural gas and 11 to 13 inches of water column for L.P. gas. Gas pressure should be checked with the properly certified measuring devise.

    e) With all sizing and pressure requirements met a blue flame with small orange tips should be visible and adequate combustion will be met to assure you the least amount of runtime to reach the temperature required for a great sauna experience. Remember, your heater was tested and fired properly at the time it was built for you, using the gas measurements listed above.

RULES FOR SAFE INSTALLATION AND OPERATION OF YOUR NIPPA SAUNA HEATER

- Check local codes, the installation must comply with them.
- The heater must be installed with strict conformance in regard to clearances.
- The heater must be installed on a noncombustible floor system.
- The heater must be installed with noncombustible walls with clearances defined in Figures No. 2 and 3.
- The gas-fired sauna heater must be connected to its own dedicated flue system.
- All flue pipe installation through walls and ceilings must conform to American Gas Association rules and regulations.
- The gas-fired sauna heater must have a draft diverter installed above the heater on the flue pipe. See Figure No. 4.
- Be sure there is a sufficient supply combustion air to the area where the sauna gas burner is to be located.
- It is required that a fireproof guard or fence be constructed around the sauna heater to prevent the bather from making physical contact with the heating unit. See Figure No. 7.
- The minimum height from the sauna heater to the sauna room ceiling should be 40 inches.
- Do not locate benches over the sauna heater.
- The sauna, like a bathroom, should be kept clean and odor-free at all times.
- Towels or mats should always be used on the benches and floor as perspiration otherwise penetrates the soft wood.
- Air out the sauna often by keeping the door and vents open when the sauna is not in use.

Saunas that are in daily use should be washed down at least once a week to keep them clean and the air fresh. Duckboards should be removed from the sauna and the sauna floor mopped and dried in a conventional manner, and the duckboards thoroughly scrubbed and dried before returning it to the sauna room. The sauna heater should be wiped down occasionally with a damp cloth to remove lint and dust. The rocks should be removed once a year for cleaning and small or crumbled rocks replaced.

CAUTION

Pregnant women or persons with poor health should consult their Physician before using any sauna.

- Do not use the sauna rooms for drying clothes, bathing suits, etc. Do not hang towels above heater or place any object other than rocks on the sauna heater.
- Inspect the sauna regularly for required maintenance to heater, controls and benches. Replace wood surfaces, which show any signs of deterioration.
- The heater gets extremely hot during operation and should not be touched or serious burns may result.
- To clean and remove perspiration stains, use soap or detergent in warm water, best applied with a scrub brush. Badly soiled surfaces may require sanding. Sand paper wrapped around a wooden block works well.

Recommendations for Sauna Construction

It is important that the sauna be constructed properly to accommodate the installation of LP or natural gas sauna heater.

Wall Framing: Masonry or concrete walls to be stripped with 2" x 4" dry framing material on 16 inch centers to provide nailing for wall paneling. Frame walls to be standard stud walls. If interior cedar is to be mounted vertical, then horizontal furring strips are required.

Noncombustible walls: Your LP or natural gas sauna heater requires the construction of a noncombustible wall with a 14" x 24" opening to the adjacent room. *See Figure No. 1*. Walls can be cement block, brick, steel studs with fire resistant sheeting or other suitable noncombustible construction materials. *See Figures No. 2 and 3* for minimum distances from sauna heater to combustible walls.

Installation: Full thick, foil faced fiberglass blanket with a minimum "R" factor of 11, for both walls and ceiling. Aluminum foil facing into room.

Ceiling Frame: Ceiling height 78" minimum and 96" maximum. Ceiling joists 2"x 4", 2"x 6" or 2"x 8" dry fir or pine on 16" centers.

Plasterboard: (When required by code). 5/8" gypsum wallboard, one-hour fire rated. Apply on wall and ceiling framing before interior finish.

Interior Finish: 1"x 4" V-joint T&G vertical grain KD cedar. All boards full length. Blind nails width 5d galvanized finish nails or equivalent power stapling.

Benches: 1"x 4" or 2"x 4" clear VG cedar with 2"x 4" or 2"x 6" face and framing members. Use galvanized nails and fastenings. Conceal where possible.

Heater Guard Rail: Constructed of 1 ½" x 1 ½" x 3/16" angle and carbon steel strapping. *See Figure No. 7*.

Sauna Door: Pre-hung constructed of solid fir or pine complete with clear tempered hermetically sealed glass. Wooden pulls and self-closing hinge.

Sauna Heater Assembly and Inspection

Your new sauna heater comes from the factory completely assembled and only required you to make the gas, flue pipe and temperature control connection. At times, shipping damage does occur, therefore inspect your heater thoroughly prior to use. If you find damage contact the shipping agent prior to contacting the dealer.

Sauna Heater Location

Installing an LP or natural gas sauna heater requires more consideration that other type of heater. The safety, as well as efficiency of the gas heater's operation, relies greatly on the minimum clearance to combustibles, ventilation of the sauna, and proper installation of the flue system.

The LP or natural gas sauna heater has been designed to fit through a noncombustible opening located between the sauna room and the change room or open area. *See Figure No. 1* for the proper dimensions of the opening. All heater gas and temperature controls are located and operated from outside the sauna room.

Heater Clearances to Combustible Material

Your sauna heater has been tested to determine the safe clearances to combustible materials. *Figures No. 2 and 3* provide the required clearances for two typical arrangements.

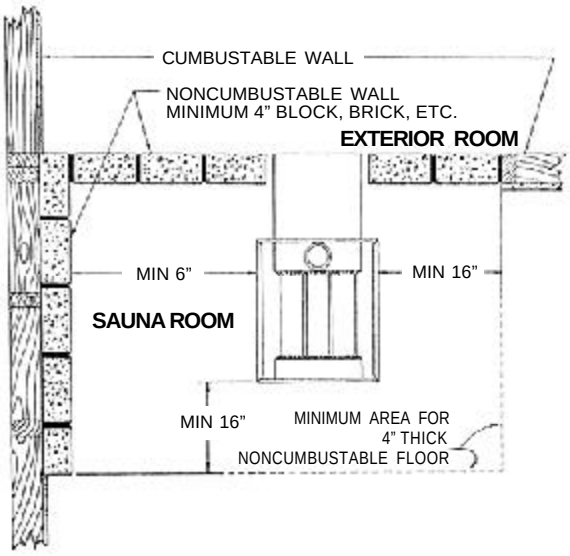
Sauna Floor Construction

In addition to the wall clearances, the floor must also be given special consideration. The sauna heater must be placed on a noncombustible floor system of at least the size specified in *Figures No. 2 and 3*. The noncombustible floor may be a typical floor at least four inches thick.

Sauna Ventilation and Combustion Air

By locating the sauna heater in the opening between the sauna and the change room or open area, it provides enough fresh air for proper combustion of the gas burner. The space between the sauna heater and noncombustible wall also provides enough air to ventilate the sauna. *See Figure No. 1*.

FIGURE 2



INSTRUCTIONS FOR INSTALLATION OF LP OR NATURAL GAS SAUNA HEATER WITH CLEARANCES TO CUMBUSTABLE AND NONCUMBUSTABLE WALLS

FIGURE 1

INSTRUCTIONS FOR OPENING IN NONCUMBUSTABLE WALL FOR LP OR NATURAL GAS HEATER

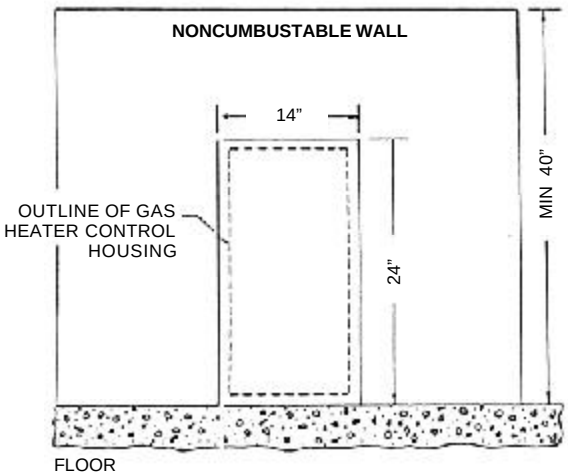
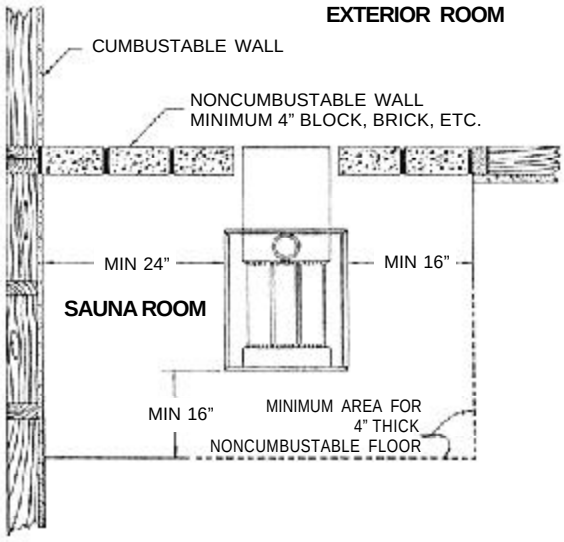


FIGURE 3



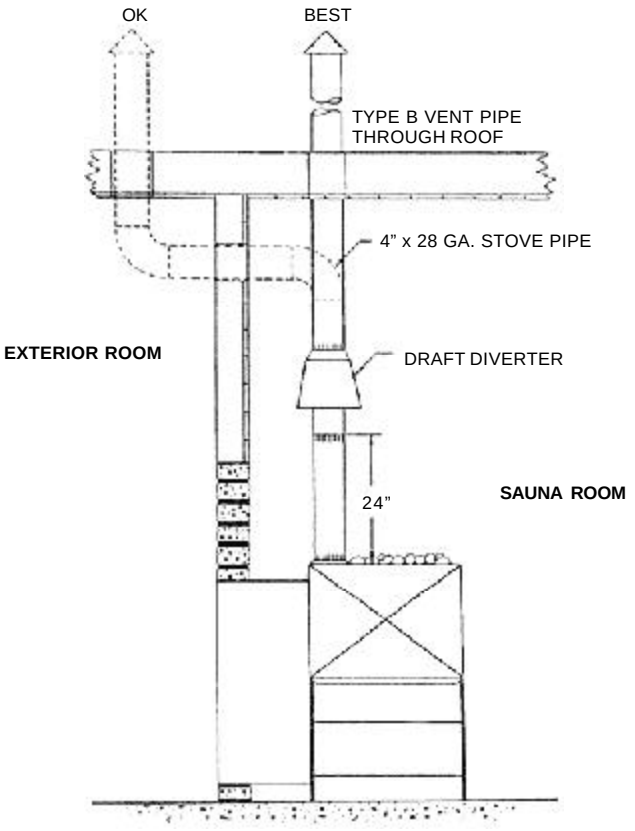
INSTRUCTIONS FOR INSTALLATION OF LP OR NATURAL GAS SAUNA HEATER WITH CLEARANCES TO CUMBUSTABLE AND NONCUMBUSTABLE WALLS

GAS HEATER EXHAUST SYSTEM AND DRAFT DIVERTER

Your gas sauna heater is designed for a four-inch exhaust stack or flue. The metal flue pipe (28 gauge) sections should extend through the ceiling and roof of the sauna. A second option is to add an elbow and extend the flue pipe through the sauna wall and a second elbow to extend the flue pipe through the ceiling and roof. *See Figure No. 4*. It is important that a draft diverter be installed between 15 and 24 inches above the sauna heater.

FIGURE 4

LOCATION OF STOVE PIPE AND DRAFT DIVERTER



TEMPERATURE CONTROL

The temperature control rough-in box should be installed flush in the wall 5 feet up from the floor, so the opening is to the outside of the sauna room wall. The control that fits in this box is completely pre-wired and coded to simplify the field wiring. The capillary tube of the thermostat may go out through any knockout in the rough-in box. The preferred method is to run the tube within the wall as shown in *Figure No. 5*. The rubber grommet furnished with the control is to protect the capillary tube where it leaves the rough edge in the box. The capillary tubing bulb should be covered with the protective shield furnished with the control. The screws for attaching the shield are also included.

Caution: The tubing should be uncoiled carefully - the minimum bend radius of the tubing is ¼ inch. Damage to the tubing will make the heater inoperative.

DANGER

Your temperature control operates on a millivolt system. Under no circumstance should this system be tied to 120-volt source.

OUTLETS OR RECEPTACLES

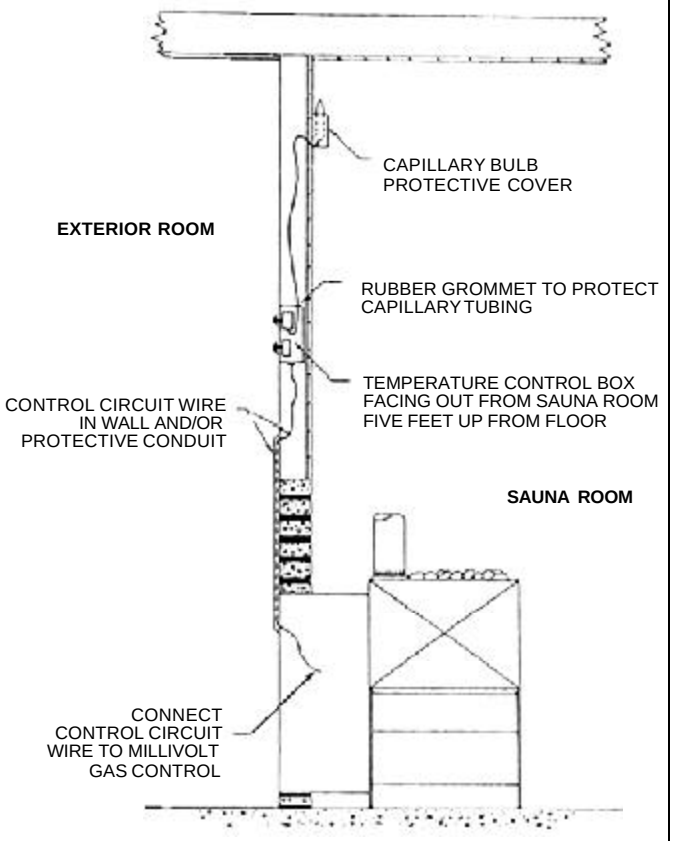
Caution: Receptacles or outlets must not be installed in a sauna room. If an intercom speaker is to be installed in a sauna room, it should be of the outdoor metal type and should be installed away from the sauna heater and as low to the floor as possible. The sauna room light should be a wall bracket type and the rough-in box should be flush with the inside finished material.

Outlets or Receptacles - continued

The recommended height is 70" up from the floor. If a ceiling light is to be used, it should be an approved type with a junction box that is remote to the fixture itself. Use only a fixture that utilizes A.F. of fixture type internal wiring.

FIGURE 5

SAUNA HEATER CONTROLS AND CAPILLARY BULB



Sauna Heater Operation and Safety

Prior to operating your LP or natural gas sauna heater, have an authorized LP or natural gas dealer inspect all gas connections from the source of supply to the sauna heater burner.

Caution: Dealer should check for proper incoming gas pressure.

Caution: Inspect all gas connections by turning on the incoming gas valve and applying soapsuds to each connection. If a stream of bubbles or enlargement of bubbles occurs this indicates a leak. Turn off the gas valve and tighten any leaking connections and recheck until all leaks are eliminated.

Steps in Lighting Burner Pilot

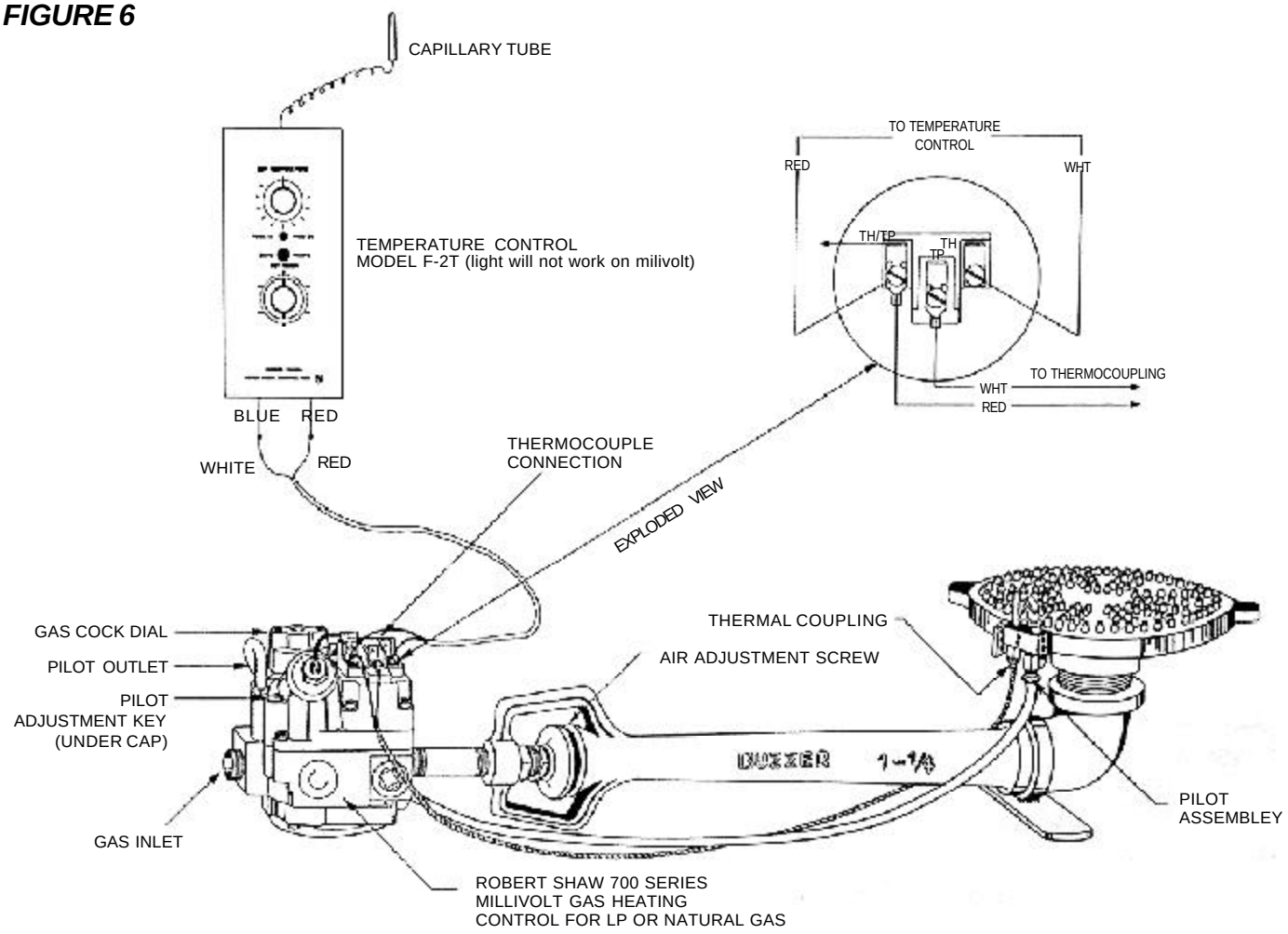
- Turn on incoming gas valve from LP or natural gas source.
- Turn gas cock dial knob down and hold.
- While holding gas cock dial knob down, apply flame to pilot assembly attached to burner.
- Hold gas cock dial knob down for approximately one minute while thermo coupling heats up.
- Slowly release gas cock dial knob. If pilot flame goes out repeat the above steps until pilot flame remains lit.
- When pilot remains burning, turn gas cock dial knob counter clockwise to allow gas to flow to the burner.

Temperature control Model F-2T

In order to activate the burner, set temperature dial on the temperature control model F-2T to the HOT setting.

Turn set timer dial on temperature control to 60 minutes to activate the burner flame.

FIGURE 6



Adjustment of Burner Flame

If the burner flame appears to dance above the burner, this is because the burner is not receiving the proper combustion air.

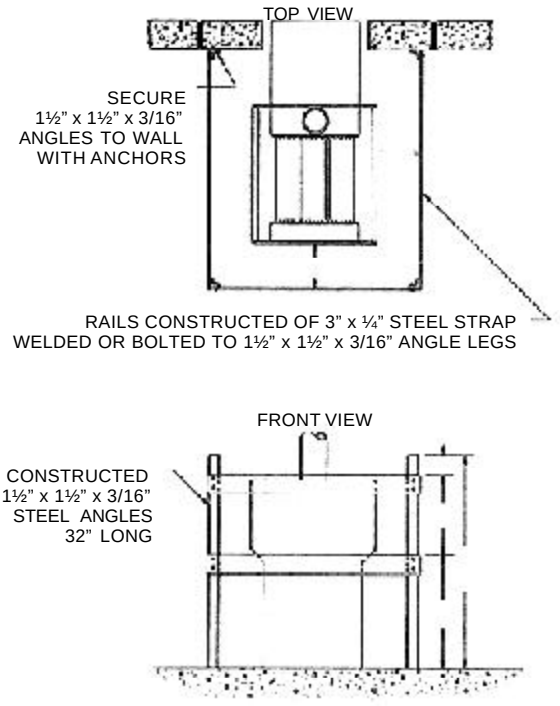
- Loosen the lock nut on the air adjustment screw located between the burner and the heating control valve.
- Adjust the screw to give the burner flame the proper position on the burner.
- Too much air will make the flame dance above the burner.
- To correct, turn the air adjustment screw clockwise to bring the flame down to the burner, give the screw ¼ to ½ additional turn clockwise to maintain proper flame.
- Secure lock nut.

To check if burner flame is properly adjusted turn set timer knob on temperature control to off position and pilot flame should remain burning.

Reset timer knob to desired time.

CAUTION: After all of the above checks are completed run sauna heater for 15 to 30 minutes until paint on heater is cured.

FIGURE 7 HEATER FENCE



Sauna Operating Steps

- Set the temperature-rotating knob to 10. This is the highest heat setting.
- If your temperature control is a model C103A turn the one-hour timer to its maximum setting (60 minutes).
- Observe the wall thermometer (heat indicator) in the sauna room and when it shows a temperature that feels satisfactory to you (160 degrees to 180 degrees F is normal) slowly rotate the temperature knob from 10 back towards the OFF position until you hear a click. At this setting the heat will cycle ON and OFF and maintain approximately the temperature now appearing on the wall thermometer.
- After you have used the sauna a few times, you should be able to determine the number on the rotating dial that will give you the temperature you prefer for your sauna bath.
- After you have finished your sauna bath turn the switch to OFF. The timer switch may be advanced at any time during your sauna, or it will automatically shut the heater off when the time has expired.

Special Signs for your Sauna

Visit our website at www.nippa.com to order. Examples images are below of:
A CAUTION placard can be attached to the interior wall of the sauna room directly above the heater where it will be visible to the bather. The WARNING placard can be attached to the door of the sauna room. A clear acrylic placard printed "SAUNA BATHER INSTRUCTIONS" can be mounted outside the sauna room next to the door, at eye level.

CAUTION
To avoid a fire do not place combustible material on heater at any time.

WARNING
Do not exceed 30 minutes in sauna.
Excessive exposure can be harmful to health.
Persons with poor health should consult their physician before using.

Thermometer Gauge

(Not furnished with heater, available from your NIPPA dealer). Locate 6 inches down from ceiling on wall.

Bucket and Dipper

(Not furnished with heater, available from your NIPPA dealer). Bucket must be kept full of water at all times. Do not leave bucket in sauna room when not being used. Dippers have long wooden handles to keep from exposing hands to steam.