

Installation Manual

TORCH



The best in gas sauna heaters

Made in the USA!

Please carefully read entire manual

TORCH


Phone - (906) 376-4076

Email - torch.sales@gassaunastoves.com

Please store this manual near your
sauna for future reference

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Safety Information

Warning:

- Failure to follow safety information, warnings, or instructions may result in property damage, personal injury, or death.
- Stove controls and exhaust flue must be installed by a licensed professional.
- Stove exhaust flue and gas piping must be installed adhering to local codes.
- A Suitable Carbon Monoxide Detector is required near the location of the stove.
- There must be proper make up air ventilation to the room that the stove intake is in.
- Proper stove clearances must be met.
- Stove must be vented with proper exhaust piping to the outside of the building with a vertical termination.
- Stove controls must never be installed inside the sauna room.
- Stove controls should never be placed near water.
- Ensure all factory fittings and wire connections are tight after installation.
- A guard must be installed around the stove.
- Never store flammable liquids or gases in the sauna, adjacent rooms or anywhere near the gas valve and intake box.
- The heater requires unobstructed fresh airflow to the bottom of the intake box.

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Installation Planning

When planning to install a gas sauna heater it is important to consider the following:

- You must decide what heater will work for your space. Calculate the cubic footage of your sauna by multiplying the length x width x height. If your sauna is not insulated, multiply the cubic footage by 1.2 to get the adjusted number. If you have windows in your sauna, multiply the width x height of each window and add to the cubic footage. TS-60F is adequate for up to 450 ft³. the TS-80F is adequate for 450-900 ft³.
- There must be enough space to install the heater with the proper clearances to combustibles. See Placement page for dimensions and clearances.
- The heater must be installed against a wall so the intake neck can penetrate through the wall either to the outdoors or an adjacent room. This supplies the stove with fresh air and puts the gas valve in a cool dry place. (Keep in mind this is where the pilot lighting will occur so it must be accessible. See Wall Opening page for wall opening dimensions for the neck. (It is recommended to frame the opening as the wall is constructed.)
- If the thickness of the wall the intake neck is to be installed through exceeds 5 inches you must also purchase the recessed box for installation or use flashing for a similar effect.
- The room which the intake box and gas valve are in must have adequate fresh make up air from outside. See Fresh Air Venting page.
- The heater exhaust must be vented with the proper piping and is required to terminate vertically above the roof line. See Exhaust Flue page for more info.
- This heater has a control that must be mounted on the wall outside of the sauna, either in an adjacent room or on the exterior of the building. When planning the control mounting location, keep in mind that it has a 5ft lead for the thermostat probe and a 20ft wire that runs to the heater. See Control Box page for more info.
- The heater requires a gas connection. Natural gas models require piping from your gas supply. Propane models need either piping from your propane supply or a propane tank. Minimum recommended size is 100lbs. The propane hookup kit has a 5ft hose and regulator capable of connecting directly to a propane tank if the intake neck and propane tank are close enough. See Gas Piping for more info.

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Exhaust Flue

Warning

- Consult a professional for proper venting of your stove.
- All exhaust clearances and local codes must be followed.
- The exhaust flue must extend up through the ceiling and out through the roof or through the wall to a vertical chimney system.
- The exhaust flue must have a vertical termination 3ft above the roof at the exit point and at least 2ft above any structure within 10ft to ensure a proper draft.
- Class “A” chimney rated for at least 800 degrees Fahrenheit must be used and proper clearances must be followed.
- Minimum Draft height is 6ft from the top of the stove.
- Horizontal runs must use either double wall or insulated stove pipe and length must not exceed 50% of the vertical height. Additionally, 5ft must be subtracted from the height for every 90 degree elbow.

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Gas Piping

Gas Piping

- Gas line should be installed by a licensed professional.
- The gas line should come directly from the meter.
- The gas line must be sized properly for your stove size and distance from the meter to provide the minimum required pressure.
- A sediment trap must be installed before the valve.
- Follow all codes and regulations pertaining to gas line installation.

Warning:

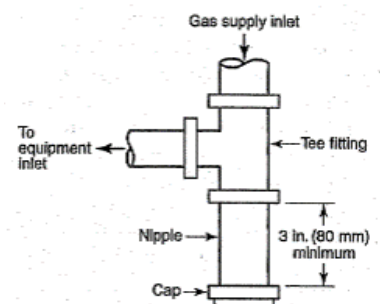
For proper combustion this heater requires a minimum of 3.5 inches of water column for natural gas and a minimum of 11 inches of water column for propane models.

The gas supply must not exceed 1/2 PSI

Propane Tank Sizing

- If portable tanks are to be used, it is important to have a tank with adequate capacity. If not, the evaporation rate in the tank will not keep up and the pressure will drop, resulting in poor heater performance.
- The TS-60F requires a minimum of 60lbs capacity in warm weather and more in colder temperatures.
- The TS-80F requires a minimum of 80lbs capacity in warm weather and more in colder temperatures.
- These are the minimum requirements. It is recommended to use a tank of at least 100lb capacity for best performance.
- It is allowable to tee two tanks together to reach the required capacity.
- Never bring or store a propane tank inside an enclosed structure.

Sediment Trap



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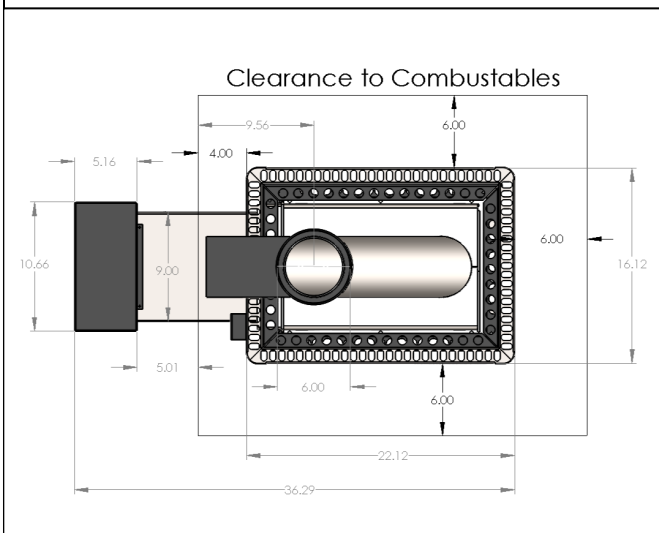
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Placement

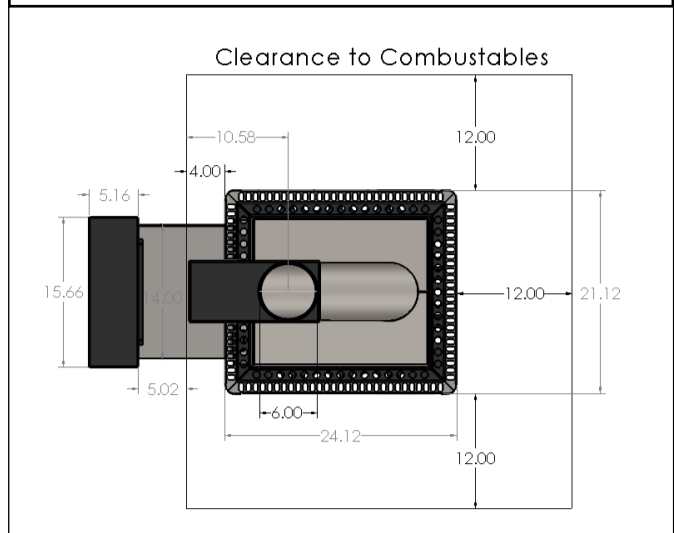
Placement

- Stove must be placed where the valve and intake can be installed through the wall into another interior room.
- The valve and intake must not be installed outdoors or exposed to the elements.
- If the intake/valve is installed outdoors a protective cover must be built around it that lets fresh air flow into the intake.
- The stove must also be in a location where the exhaust can exit up and out.
- The TS-60F Requires 4 inches of clearance on the intake side and 6 inches on the remaining 3 sides. Refer to diagram below.
- The TS-80F Requires 4 inches of clearance on the intake side and 12 inches on the remaining 3 sides. Refer to diagram below.

TS-60F Clearances



TS-80F Clearances



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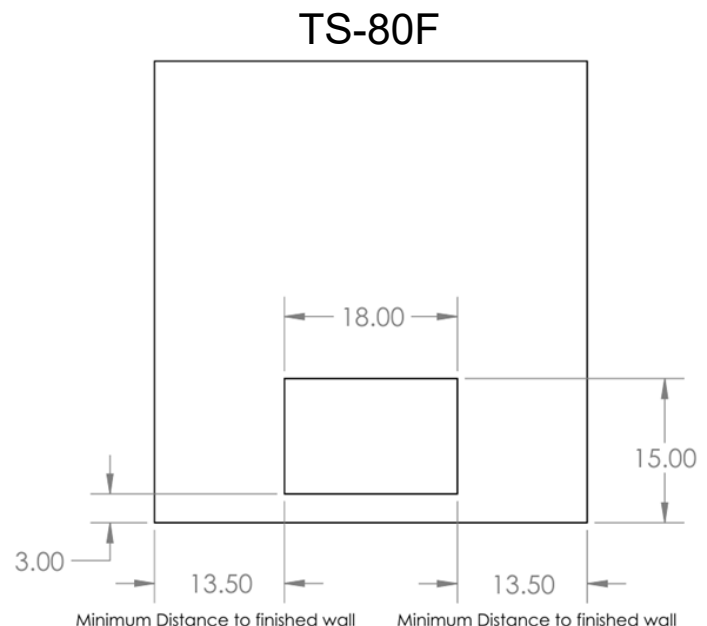
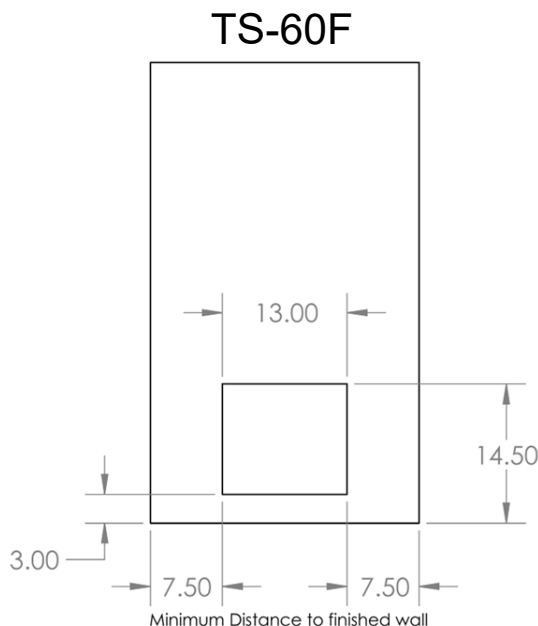
Wall Opening

- Once the stove location is determined a hole can be cut in the wall for the intake neck. See dimensions below. If the stove is located in the corner it is important to follow the combustible clearance to the finished wall
- If stud wall construction is used it is best to frame the wall opening as it is being constructed. If it is already constructed it is recommended to add framing inside the wall around the opening after it is cut.
- Once the openings are cut and framed, if necessary, the stove can be put in place. If it is new construction you will want to have the wall paneling installed first.
- For stoves equipped with the propane hookup kit, it is necessary to remove the two socket head bolts holding the gas valve in place to allow the valve to be turned allowing it to fit through the opening. In this case it will be helpful to have 2 people to set the stove in place.
- Once the stove is in place the supplied flashing trim can be installed around the intake neck. Use the provided screws with a 1/4 inch hex head to fasten it.

Warning:

The intake box must have at least 2 1/2 inches below the entire box outline for intake air flow.

This area below the intake box must be covered in flashing if it is a combustible material.



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Fresh Air Venting

- The room that the intake of the stove is installed in must have adequate venting to supply the stove with enough fresh air and avoid a negative pressure in the room.
- If there isn't sufficient venting, the stove may not draft properly resulting in incomplete combustion.
- Vent openings should be protected from rain and pests with something similar to vent shown below.

Minimum Vent Size

	Width	Height
TS-60F	5 Inches	5 Inches
TS-80F	7 Inches	5 Inches

Outside view of typical vent



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Control Box

Control box should be installed on the wall in a convenient moisture free location. Do not install inside the hot room. The control box must have a protective cover if installed outdoors.

The copper thermostat bulb must be routed into the sauna room to measure the sauna temperature.

Thermostat wire must be run to the stove valve box and connected to the terminal block.

Control box must not be supplied by any external power source unless it is equipped with remote start; then the supplied power adapter should be used.

Control Box

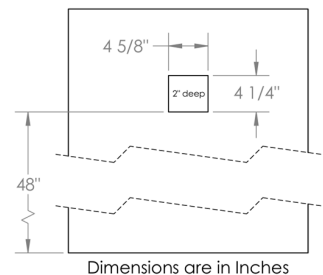


Flush Mount

If a flush mount installation is desired and possible it is required to cut a rectangular opening in the wall according to the dimensions on the right. (The tabs on the side of the box must be bent flat against the sides to install this way.)

It will likely be necessary to run the thermostat control wire back to the stove valve box and the copper probe line inside of the wall cavity to a suitable location inside the sauna. (see probe mounting) It is best to run these before the wall paneling is installed.

To secure the control box in place you will remove the four screws on the face of the control and use four of the supplied longer screws to secure the box to the wall. It is best to predrill with a 5/64" bit.



Surface Mount

If you will be mounting the control box on the surface of the wall you will only need to drill a hole for the copper probe and line. You may also run the thermostat control wire through this hole and inside the wall if possible and desired. If the thermostat control wire is installed outside of the wall it is required that it be securely fastened along the length of the wire.

To secure the control box in place you will use four of the supplied longer screws to secure the box to the wall through the little tabs on the side. It is best to predrill with a 5/64" bit.

Probe Mounting

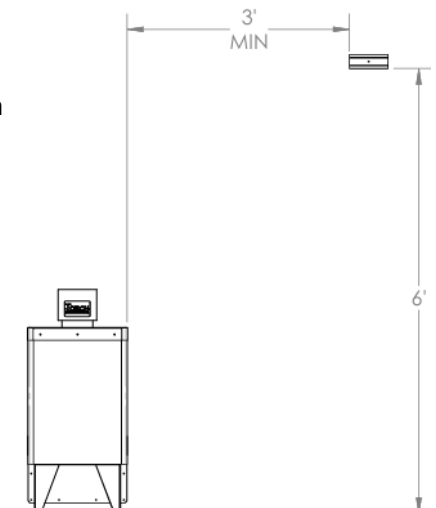
Caution: Do not kink, break, or cut the copper line connecting the probe to the control. Do not install where the hot probe cover can be accidentally touched.

The copper line can be run inside of the wall or on the sauna wall and covered with wood trim.

The penetration into the hot room should be caulked to stop moisture.

The mounting cover can be removed and the bracket can be fastened to the wall with two of the longer screws that are supplied. This must be installed 6ft high and a minimum of 3ft from the heater.

Dimensions are in Feet



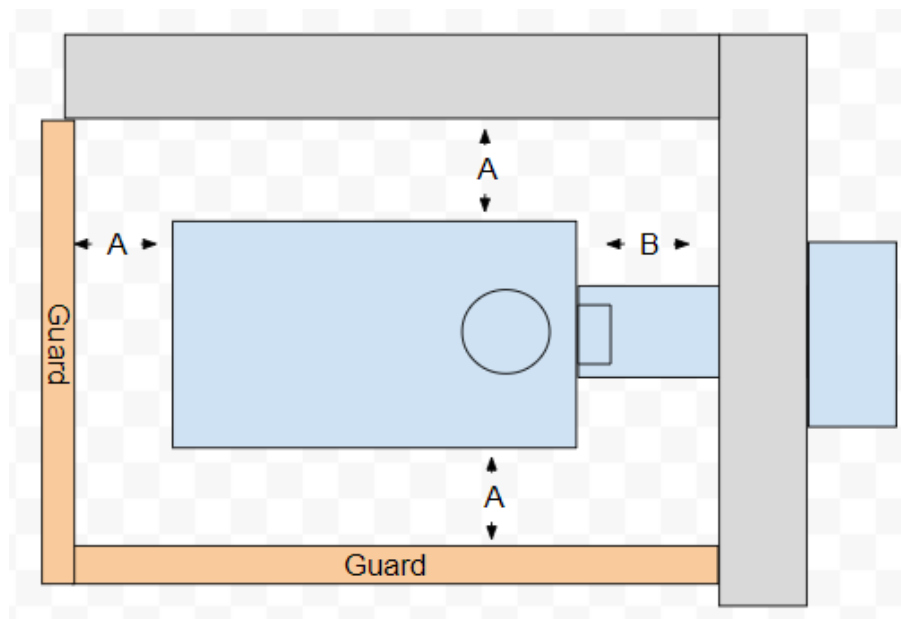
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Stove Guard

- A stove guard must be built around the stove to prevent anyone from accidentally touching the hot stove.
- It may be built out of wood 2x4's or similar material.
- The stove guard should be 2 rails spaced 8 inches apart with the top rail 28 inches off the ground.
- A leg in the corner may be needed for support.
- Clearances must be followed for the guard. (see Placement page)



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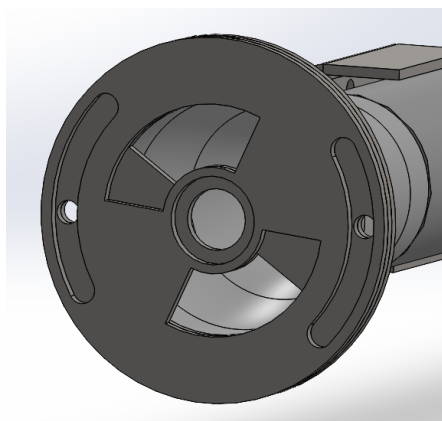
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# Initial Start Up and Adjustments

After the pilot is lit and the burner is burning these adjustments can be made:

- If the flames are dancing above the burner close the air control until they are steady.
- If the flames are yellow open the air control until the just the tips are yellow.

Burner Air Control



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# Owners Manual

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# Safety Information

## Warning:

- Failure to follow safety information, warnings, or instructions may result in property damage, personal injury, or death.
- You must consult a Certified Plumber or HVAC Professional to assist you with installation and hook up of your gas stove.
- Local codes or requirements must be followed for installation.
- A Suitable Carbon Monoxide Detector is required near the location of the stove.
- There must be proper ventilation to the room that the stove intake is in.
- All stove clearances must be met.
- Do not place anything on the stove at any time.
- Stove must be inspected regularly.
- Stove should not be operated without recommended amount of rocks.
- Sauna door must always open outward.
- Sauna door must never include a lock.
- Sauna warning signs must be displayed.
- Do not touch the heater while in operation.
- Never store flammables near the stove or stove intake such as gasoline.

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# Pre Operation

- Only use solid clean rocks on the stove. Dirty rocks will create a bad smell and possibly be harmful.
- Make sure nothing flammable is near the stove.
- On first start up it is advisable to open a window or vent to allow smells to vent out as oils burns off.

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# Operation Instructions

## Pilot must be lit before the stove will work

**Warning:** If you smell gas, immediately shut off the manual valve in the gas piping to the stove. Do not touch any electrical switches or use the phone. Leave the building and call your gas supplier. If he cannot be reached, call the fire department.

## Pilot Lighting Instructions

1. Turn wall thermostat and timer to the off positions. Remove burner access panel.
2. Turn gas control knob clockwise to "OFF" position.
3. **Warning:** Wait at least 10 minutes to allow any gas in the combustion chamber to vent. If you then smell gas in the appliance area or near the floor, STOP and follow the warning above. Failure to do so may result in fire or explosion.
4. If you do not smell gas, turn gas control knob counterclockwise to the "PILOT" position.
5. **Warning:** If pilot lights without depressing gas control knob, replace control. Depress and hold gas control knob down completely and click the red sparker button until the pilot lights. Continue to hold the gas control knob down for about 1 minute after pilot is lit. Release gas control knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 2 through 5. **Warning:** If gas control knob does not pop up when released or if pilot will not stay lit after several tries, turn the gas control knob to "OFF" position and call your service technician or gas company.

## The thermostat and timer can then be adjusted

1. Turn timer to desired time

2.

For initial thermostat adjustment start low and slowly turn it up until the room is to the desired temperature.

**When finished using the sauna, the timer can be turned to "off"**

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# Troubleshooting

## **Pilot won't light**

- Make sure gas is flowing properly and no valves are turned off
- For propane versions, ensure that the tank is not empty
- Make sure all wires are connected properly
- Make sure the piezo sparker is sparking at the pilot
- Check if the spill switch is tripped

## **Pilot won't stay on**

- Make sure all wires are connected properly
- Check if the backdraft sensor tripped

## **Main burner won't turn on**

- Check if thermostat and timer are turned up
- Check if high limit switch is working properly
- Make sure valve is turned to "on"
- Make sure all wires are connected properly



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# Maintenance

Stove should be cleaned and inspected regularly

- Remove any broken rocks and replace with new ones.
- Wash with warm water, do not use soap.
- Replace any parts that have cracks, breaks, holes or other damage.

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# Warranty

A full 1 year warranty and limited 5 year warranty is offered on your Torch sauna heater.

1. P&E Industries, LLC warrants on the terms and conditions set forth below for five years to the Original Owner only, at the Original Installation site only, this equipment to be free from defect in material and/or workmanship under normal use as specified in the Owners manual.

2. A FIVE YEAR LIMITED WARRANTY FROM DATE OF PURCHASE applies only on the heater unit as manufactured by and at P&E Industries, LLC

- and excludes all components and/or parts which are accessories, namely: the gas valve, gas regulator, pilot, thermopile, timer switch, thermostat, and, high limit, for which the one year warranty applies.

The FIVE YEAR LIMITED WARRANTY does not apply for units that have been installed in commercial locations such as public saunas, pay to use saunas, clubs, condominiums, apartments, spas or military facilities. In commercial locations, P&E Industries, LLC will provide a one-year warranty on the unit.

3. During the first year P&E Industries, LLC will, at its option, repair or send a replacement part for any that have become inoperative or damaged during said warranty period due to a defect in material or workmanship.

4. For the remainder of the warranty period P&E Industries, LLC will, at its option, repair or send a replacement part for any parts originally manufactured by P&E Industries, LLC that have become inoperative or damaged during said warranty period due to a defect in material or workmanship.

- Warranty does not cover any charges for diagnostics or installation of parts if required of a local HVAC professional

- P&E Industries may at its discretion bill for any parts that were sent out due to a misdiagnosis by either the customer or a HVAC professional.

5. This warranty in its entirety becomes null and void if unit has been incorrectly installed, modified in any way, or misuse such as operating without rocks, over heating the sauna, using sea water, pool water or spa water on the heater.

P&E Industries, LLC reserves the right to substitute new equipment or parts on any orders for replacement hereunder, but shall not be obligated to do so. This warranty is solely for the benefit of the original purchaser and no one else, and only if the installation and operating instructions applicable to the model purchased are followed. These instructions are packed with the unit and also are available on the website <http://gassaunastoves.com>

This warranty is expressly in lieu of other warranties, or liabilities, express or implied, by the company or its representatives, and in lieu of all other obligations and liabilities for damage to persons or property caused in any manner by the heater or its component parts. More specifically, by not by way of limitation, P&E Industries, LLC assumes no liability for damages which may occur as a result of neglect or intentional misuse of the heater, and the purchaser or user of the unit agrees to assume all liability for the consequences of its use or misuse by such purchaser or user, and their respective employees and agents or other third person. There are no warranties which extend beyond this description hereof. No representation or warranties are made, expressed or implied, other than those expressly set forth above and to the original purchaser only.

Warranty registration information must be filled out on the following page and emailed to [torch.sales@gassaunastoves.com](mailto:torch.sales@gassaunastoves.com) to validate this warranty. If it is not completed entirely the warranty cannot be used.

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# Warranty

Model: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Customer name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Must include the following 4 photos along with this registration:

- One photo showing the entire stove in the sauna room.
- One photo showing the gas valve enclosure and surrounding area.
- One photo showing the exhaust venting.
- One photo showing the control installation and surrounding area

Email All Registration Documents to [torch.sales@gassaunastoves.com](mailto:torch.sales@gassaunastoves.com)

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