

Installation and Care Guide

Steam Generator

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THE BOLD LOOK
OF **KOHLER**®

1230488-2-D

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS.

IMPORTANT! When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:



WARNING: Risk of explosion. For dual steam generator installations, do not interconnect steam outlets. A separate steam line must be provided for each steam outlet.



CAUTION: Risk of electrocution. Disconnect the electricity to the working area at the main breaker panel before performing these installation steps.



CAUTION: Risk of injury. To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.



WARNING: Risk of personal injury.

- The wet surfaces of steam enclosures may be slippery. Use care when entering or leaving.
- The steam head is hot. Do not touch the steam head and avoid the steam near the steam head.
- Prolonged use of the steam system can raise excessively the internal human body temperature and impair the body's ability to regulate its internal temperature (hyperthermia). Limit your use of steam to 10 - 15 minutes until you are certain of your body's reaction.
- Excessive temperatures have a high potential for causing fetal damage during the early months of pregnancy. Pregnant or possibly pregnant women should consult a physician regarding correct exposure.
- Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a steambath.
- Persons using medication should consult a physician before using a steambath since some medications may induce drowsiness while other medications may affect heart rate, blood pressure, and circulation.



WARNING: Risk of personal injury. If you become uncomfortable while taking a steambath, you should turn off the unit. Cool off with the shower, open the door, or exit the unit.



WARNING: Risk of personal injury. DO NOT consume alcoholic beverages or take medications/drugs before or when using the steambath. Alcohol and drugs affect mental judgment, greatly increase the risk of hyperthermia, and inhibit bodily functions such as heartbeat and respiration, resulting in potentially dangerous effects.



WARNING: Risk of allergic reaction. Before adding any oils, aromatic therapies, or skin care products to the aromatherapy well, make sure they will not cause an allergic reaction to the user.



CAUTION: Risk of personal injury. Do not plumb a trapway in the steam line or plumb the pressure relief valve into the steam line. Plumbing the pressure relief valve into the steam line can be hazardous if the steam outlet is capped.



CAUTION: Risk of personal injury or property damage. Avoid coming in contact with the water tank and/or steam discharge line while the steam generator is operating or shortly after shutdown. Wear eye protection and protective clothing when servicing the steam generator. The steam generator operates at high temperatures.



CAUTION: Do not use for space heating purposes.

IMPORTANT! Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F (37°C). The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting. The effects of hyperthermia include:

- Failure to perceive heat
- Failure to recognize the need to exit the steambath

IMPORTANT SAFETY INSTRUCTIONS (cont.)

- Unawareness of impending risk
- Fetal damage in pregnant women
- Physical inability to exit the steambath
- Unconsciousness

IMPORTANT! Recommended feedwater quality should be: **Hardness** - less than 60 ppm (3.5 gpg); **Total Alkalinity** - greater than 150 ppm (8.8 gpg). Calcium scale buildup from hard water can prevent proper operation of the steam generator and may cause premature failure. To ensure proper operation, the feedwater supply should be tested before operating the steam generator. If feedwater quality is not within the specified limit, contact a reputable water treatment company for treatment options.

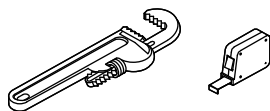
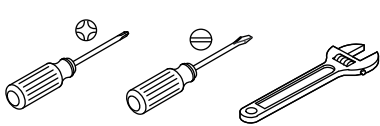
IMPORTANT! Maximum inlet water pressure is not to exceed 70 psi (483 kPa).

NOTICE: Use this unit only for its intended use as specified in this manual. **DO NOT** use attachments not recommended by Kohler Co.

NOTICE: Do not apply excessive heat to the steam generator connections when you solder connections. Do not apply flux or acids directly to the steam generator, as damage to the seals, plastic components, and trim finish may result. Do not apply petroleum-based lubricants to the steam generator components, as damage may result.

SAVE THESE INSTRUCTIONS.

Tools and Materials



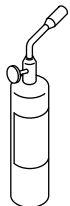
Solder



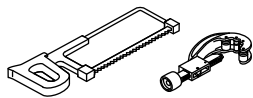
Sealant Tape



Drill w/ 1-1/4" & 2-1/2" Hole Bit



Propane Torch



Hacksaw or Tube Cutter

Plus:

- Drain/spill pan
- 1/2" copper tubing
- Assorted copper fittings
- Wire Cutters or Wire Strippers
- Conventional woodworking tools and materials
- 45 and 90 degree elbows
- Support Blocks (heat resistant)

Before You Begin

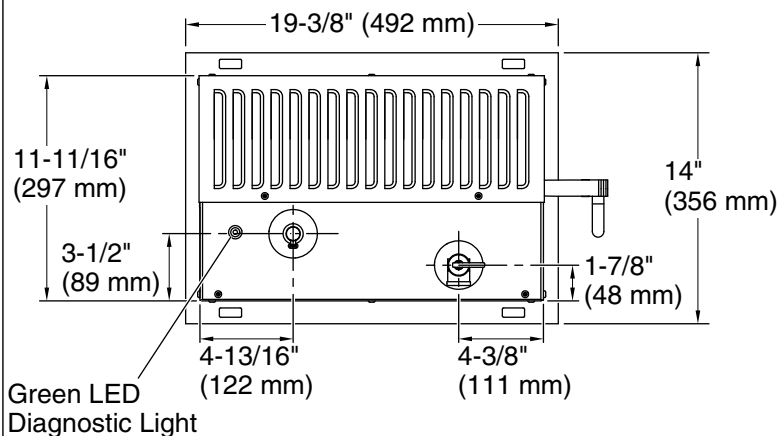
NOTE: The instructions in this installation guide cover both single and dual steam generator installations.

IMPORTANT! Provide an access panel of adequate size to permit removal of the steam generator for servicing.

- Inspect the product for any shipping damage. Do not install the unit if it is damaged. Contact Kohler Co. Customer Care Center using the information on the back of this guide.
- Follow all local plumbing and electrical codes. All electrical work should be done by a qualified electrician.
- Disconnect all power before making any electrical connections.

Before You Begin (cont.)

- Connect the steam generator to water supply lines that meet all applicable plumbing codes.
- For custom installations, locate the steam head 6" (152 mm) from the floor and 4-1/2" (114 mm) from the inside of the threshold.



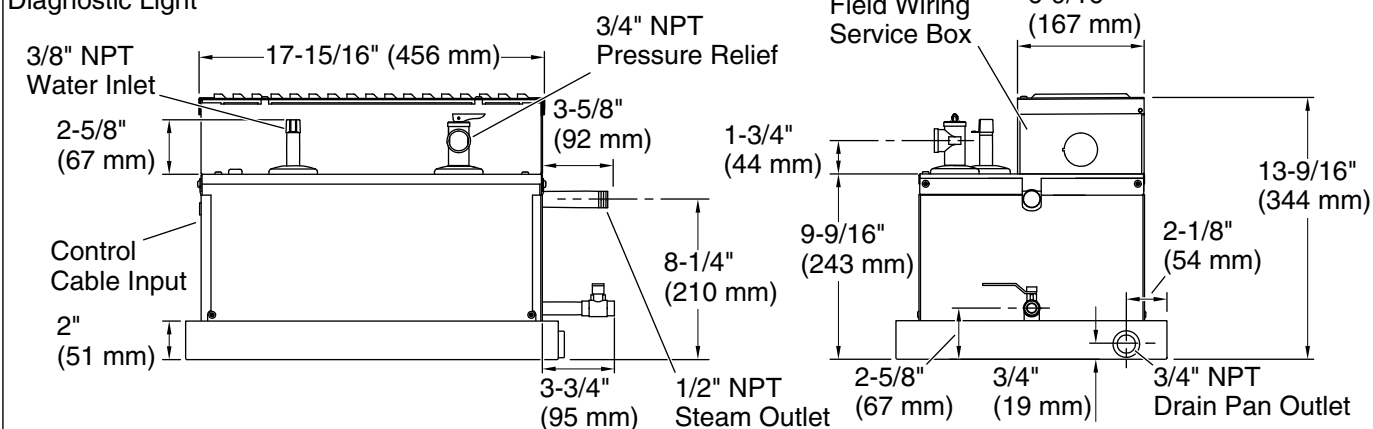
Green LED Diagnostic Light

Minimum required access panel is 24" (610 mm) L x 15" (381 mm) H.

Allow for a minimum of 12" (305 mm) of space around all sides of the steam generator.

Allow for the drain/spill pan.

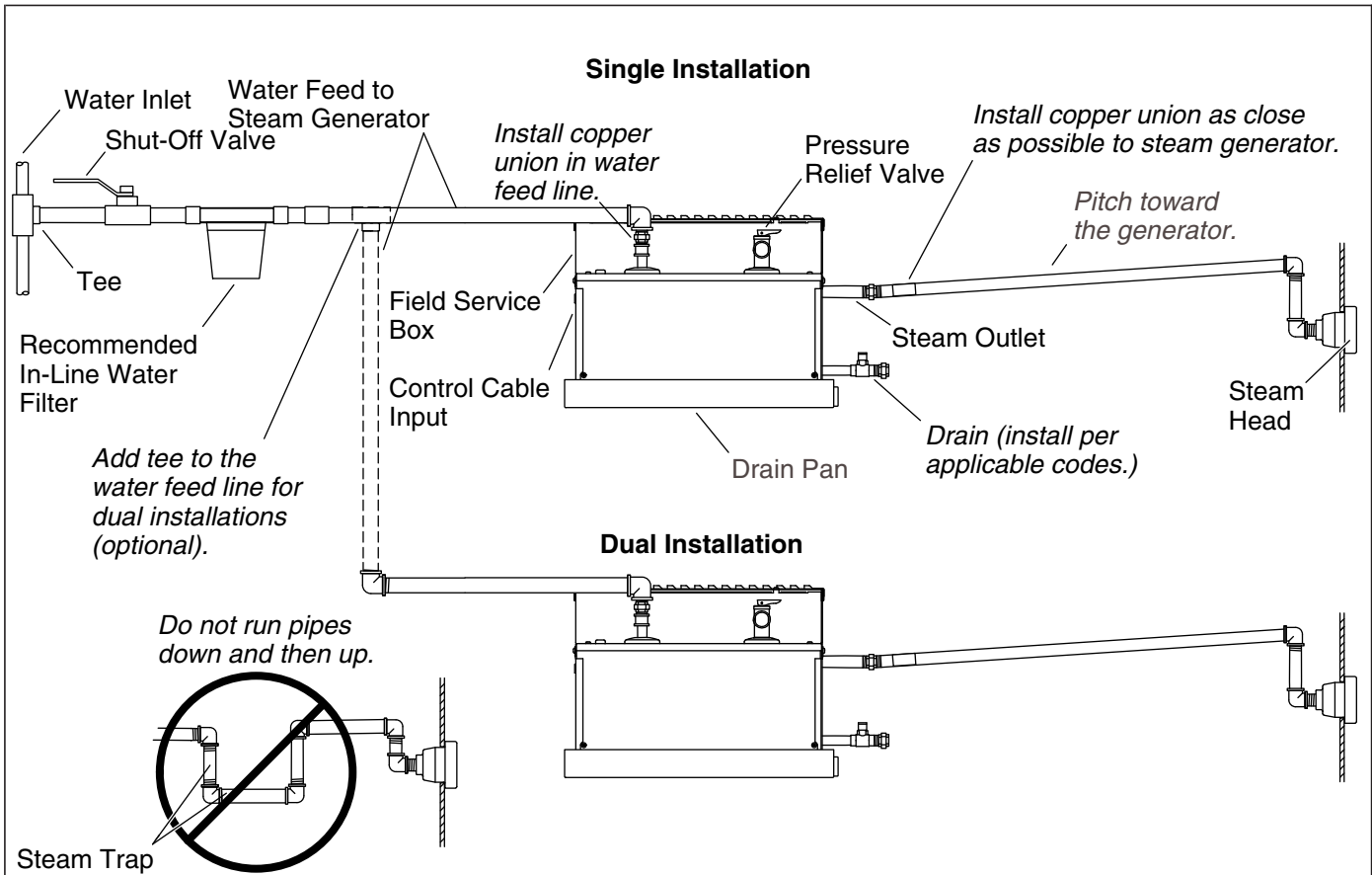
KOHLER® drain pan (shown) sold separately.



Roughing-In

NOTE: Use the dimensions in the diagram above for reference when determining the placement and clearance for the steam generator.

NOTE: Unions are supplied for the steam outlet and water inlet for connection to 1/2" copper pipe.



1. Determine the System Layout



WARNING: Risk of property damage. Allow a minimum of 12" (305 mm) of air space around the steam generator at all times. This provides an area for the heat generated by the unit to dissipate.

IMPORTANT! The minimum required access panel is 24" (610 mm) L x 15" (381 mm) H.

NOTICE: The steam generator will perform best when installed as close as possible to the steam head. The unit should be installed within 25' (7.62 m) of the steam head.

NOTICE: Large drops in the steam line can increase condensation and reduce the amount of steam produced. For optimum performance, do not install the steam generator above the level of the steam head.

NOTICE: The PowerClean function of the generator flushes through the steam head. An additional drain line is not required for this feature. The drain valve on the unit is to aid in emptying the unit before service. Plumbing is optional.

IMPORTANT! This steam generator must only be installed in the upright position as shown. The pressure relief valve location must be on top.

IMPORTANT! Contact Kohler Co. Customer Care Center if this steam generator will be installed at an elevation over 6000' (1829 m) above sea level. For installation at high elevations, the Customer Care Center will provide instructions on disconnecting the fast start coil.

NOTE: For optimum performance, use 45° elbows in the steam line when possible.

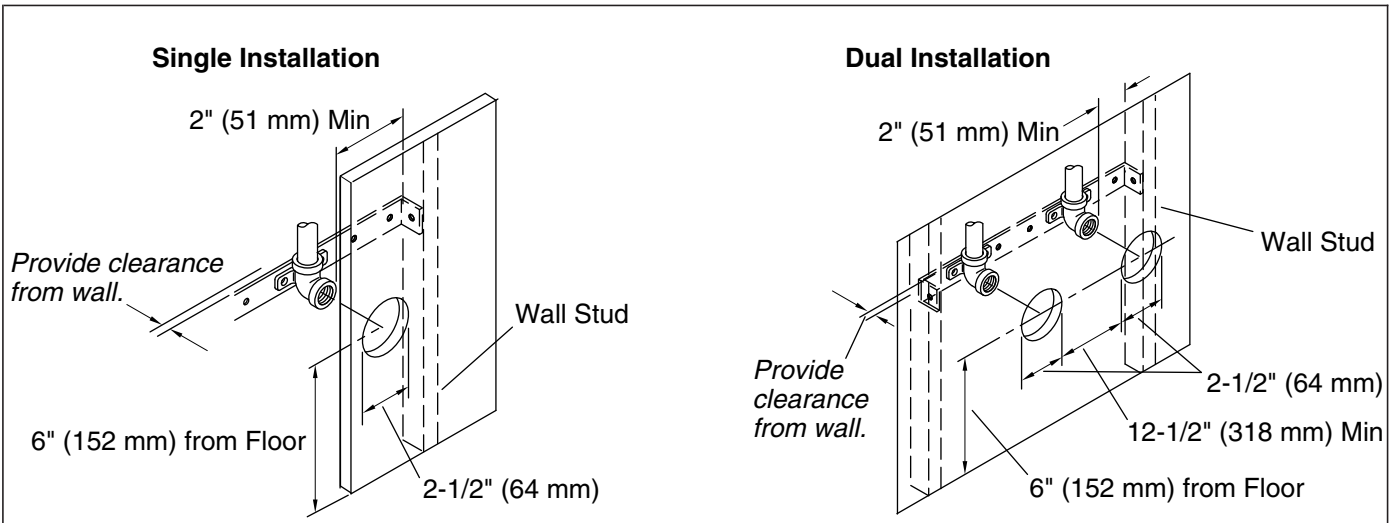
- Determine the location of the **steam generator**. Allow for a 12" (305 mm) air gap on all sides of the generator. Allow for a drain pan.
- Choose a drain pan appropriate for your installation (KOHLER drain pan is sold separately).

Determine the System Layout (cont.)

- Determine the location of the **water supplies** and **steam lines**. Ensure clearance between the steam line and any surrounding surfaces.
- Install this steam generator in a heated space to prevent freezing.
- Ensure that this steam generator is installed level.
- Allow for access to the steam generator after installation.
- Select the steam generator size based upon the steam room volumes identified below.

NOTE: For every additional foot of ceiling height above 8' (2.4 m), choose the next largest steam generator.

Steam Generator	Steam Room Volume - Cubic Feet (Cubic Meters)
13 kW	447 (12.7)
15 kW	500 (14.2)
26 kW	894 (25.3)
30 kW	1000 (28.3)



2. Determine the Location of the Steam Hardware



WARNING: Risk of personal injury. Do not install the **steam control user interface** outside the steam enclosure. The user interface must be installed within the enclosure to allow the sensors to regulate the temperature and control the flow of steam.



WARNING: Risk of scalding. Do not block the steam head or locate it near a seat or bench, as the steam head is hot during operation and may scald the user if touched.

IMPORTANT! Do not install the control directly above or in-line with the steam head.

NOTICE: When installing the control kit, allow room in the control cable for a drip loop. The drip loop will discourage moisture from following the control cable to the steam generator.

NOTE: All dimensions should be taken from the inside of the shower. Refer to the Steam Control Kit Installation Guide for more dimensional and installation information.

- Dual steam heads can be installed on opposite walls to improve steam distribution.
- Determine the **steam head** location. Locate the steam head(s) 6" (152 mm) above the shower floor and a minimum of 4-1/2" (114 mm) away from the enclosure door threshold. The steam head location should be within 25' (7.62 m) of the steam generator.
- For single steam head installations, determine the **steam control user interface** location on the wall opposite the steam head.
- For dual steam head installations, determine the **steam control user interface** location on a different wall than the steam heads. Locate the user interface as far from the steam heads as practical.
- Locate the steam control user interface 60" (1524 mm) above the floor of the shower.
- Make sure that there is adequate clearance between the steam lines and any surrounding surfaces.

3. Install the Electrical Supply

Model	K-5533-NA	K-5535-NA	K-5546-NA	K-5547-NA
Generator Size	13 kW	15 kW	26 kW (2 - 13 kW)	30 kW (2 - 15 kW)
Required Electrical Service				
Generator Dedicated Circuit #1	240 V, 80 A, 50/60 Hz	240 V, 90 A, 50/60 Hz	240 V 80 A, 50/60 Hz	240 V, 90 A, 50/60 Hz
Generator Dedicated Circuit #2	NA	NA	240 V 80A, 50/60 Hz	240 V, 90 A, 50/60 Hz
Product Electrical Rating	240V, 59 A 60 Hz	240V, 68 A, 60 Hz	240 V, 59 A, 60 Hz	240V, 68 A, 60 Hz

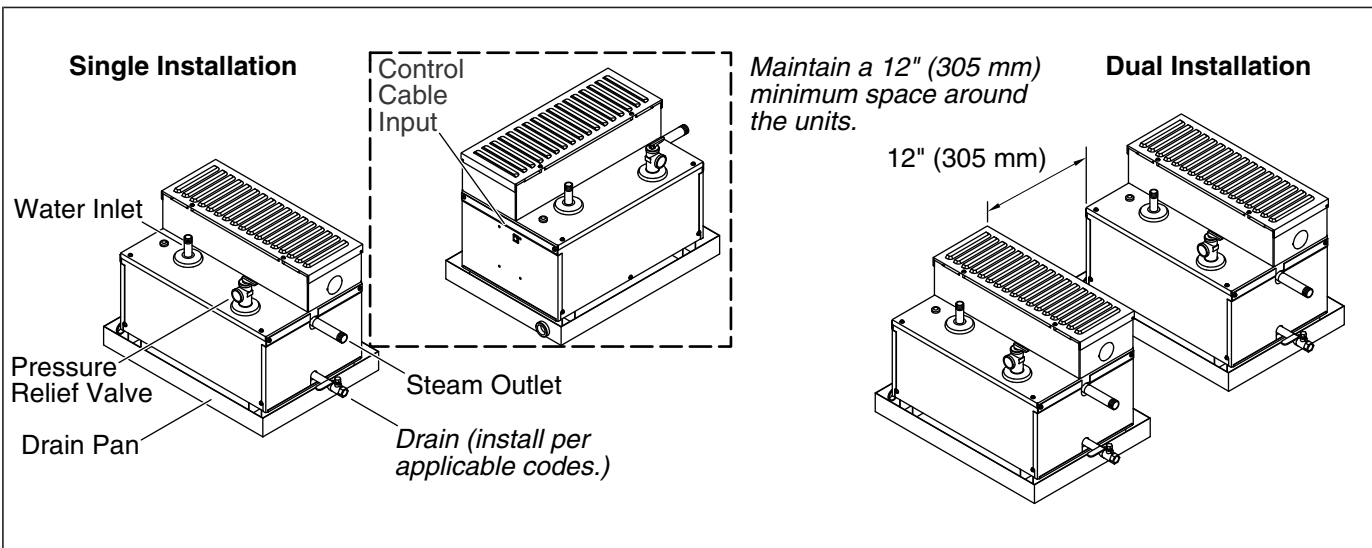
Install the Electrical Supply (cont.)



WARNING: Risk of electrocution. Disconnect the electricity to the working area at the main breaker panel before performing these installation steps.

NOTICE: Each steam generator requires a dedicated circuit. Dual steam generator installations require a second dedicated circuit.

- Follow all local electrical codes. All electrical work should be done by a qualified electrician.
- In the chart above, find the electrical supply requirements for your steam generator.
- Install the appropriate electrical supply (install two dedicated supplies for dual steam generator installations).



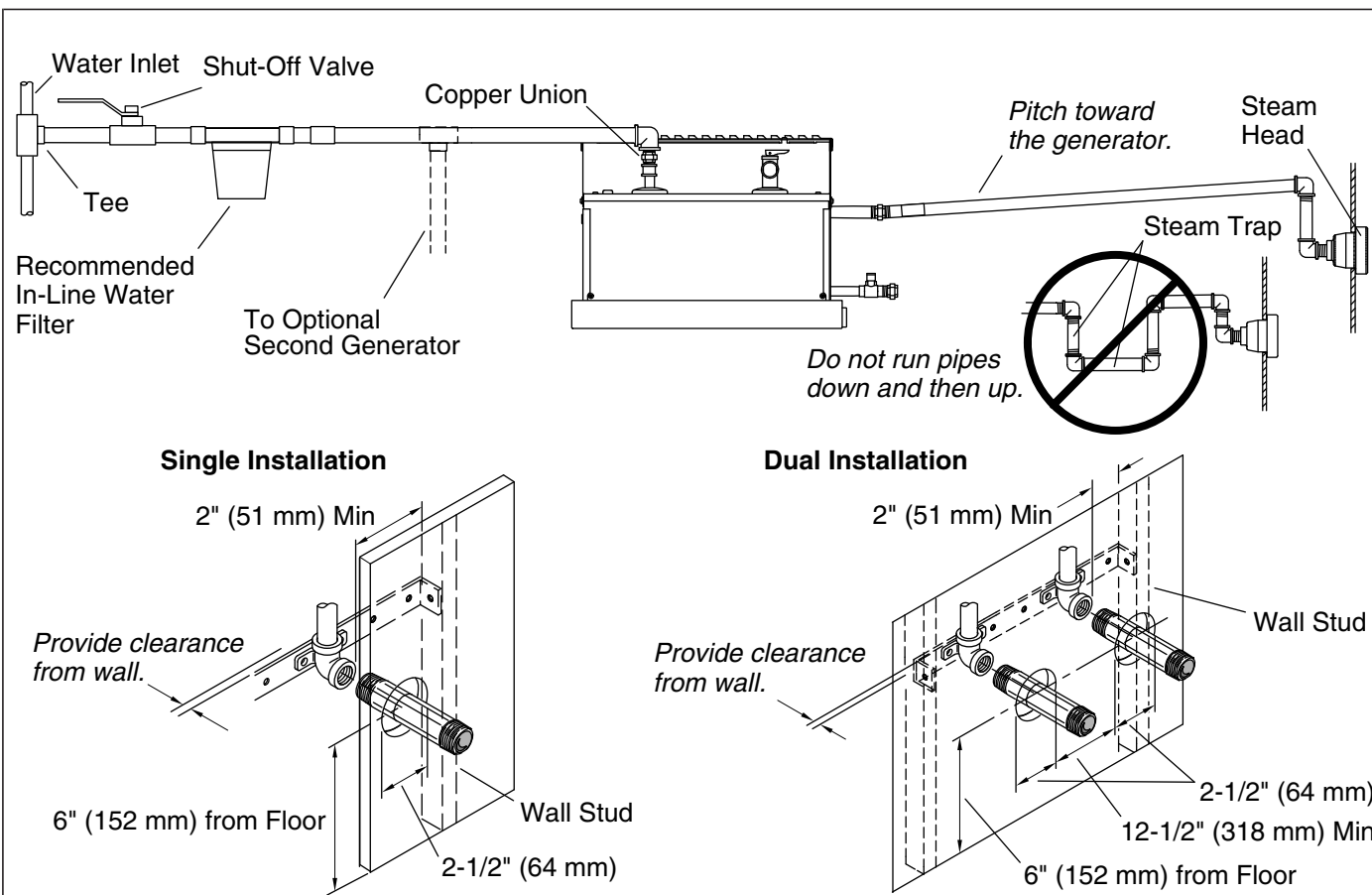
4. Install the Steam Generator







WARNING: Risk of property damage. Allow a minimum of 12" (305 mm) of air space around the steam generator at all times. This provides an area for the heat generated by the unit to dissipate.

NOTICE: For optimum performance, install the steam generator as close as possible to the steam head. The steam generator must be installed within 25' (7.62 m) of the steam head.

- Install the desired drain pan at the steam generator location. Kohler Co. recommends using a KOHLER drain pan.



5. Install the Water Supply and Steam Line

-  **WARNING: Risk of personal injury or property damage.** Do not plumb the pressure relief valve into the steam line. Plumbing the pressure relief valve into the steam line can create a hazard if the steam line is blocked or obstructed.
-  **WARNING: Risk of scalding.** Do not plumb a trapway, shut-off valve, or pressure relief valve into the steam line. Plumbing the pressure relief valve into the steam line can be hazardous, if the steam outlet is capped.
-  **WARNING: Risk of scalding.** Do not connect the drain valve outlet to the steam line. Ensure that there are no valleys or dips in the steam line.
-  **WARNING: Risk of personal injury or property damage.** Do not direct the pressure relief valve to the enclosure. In the event the pressure relief valve activates, the hot water may spray causing burns to the user and/or damage to the enclosure. Therefore, the pressure relief valve should be directed to an area where damage will not occur from contact with hot water and should conform to national and local plumbing codes.

Install the Water Supply Line to the Generator

NOTE: For all NPT threaded connections, use pipe tape or pipe sealant. Do not overtighten the fittings.

- Connect to an existing cold water line, and run a 1/2" cold water line to a shut-off valve before the in-line water filter.
- Before final connection to the steam generator, flush out the water supply line into a large pail. This removes any debris, silt, sand, or other material that may be in the line. Make sure that the filter screen is in place in the water inlet tube.
- Install 1/2" copper tubing with a union fitting (supplied with the steam generator) located as close as possible to the steam generator.

Install the Water Supply and Steam Line (cont.)

- Connect the water supply line to the steam generator.
- Turn on the water supply, and fill the steam generator with water. Check for leaks.
- Check that the water drain valve on the generator is closed.

NOTICE: Steam generators are equipped with an automatic shut-off. The water will stop after the unit is full. If the water flows out of the steam outlet, shut off the water and consults the "Troubleshooting" or contact the Customer Care Center using the information located on the back of this document.

- If the water supply line exceeds 10' (3 m) or is exposed to cold areas, insulate the piping with appropriate insulation.

Install the Steam Line



WARNING: Risk of scalding. Do not locate the steam head near a seat or bench. Scalding may occur upon contact with the steam head.

NOTICE: Never run the steam line down, then up. Running the steam line down and then up will create a steam trapway, blocking the flow of steam. The steam line should run up to the steam head from the steam generator, at a pitch of 3/8" (10 mm) to 1/2" (13 mm) per 12" (305 mm) of pipe.

NOTICE: Provide clearance between the back wall and the elbow leading into the steam housing. The elbow must not contact any wall material.

NOTICE: Provide clearance between the steam line and surrounding surfaces.

NOTICE: Do not apply excessive heat to the generator connections when you solder connections. Do not apply flux or acids directly to the steam generator, as damage to the seals, plastic components, and trim finish may result. Do not apply petroleum-based lubricants to the steam generator components, as damage may result.

NOTE: Use thread sealant tape or pipe sealant for threaded connections. Do not overtighten the fittings.

NOTE: Use 1/2" copper tube for the steam line.

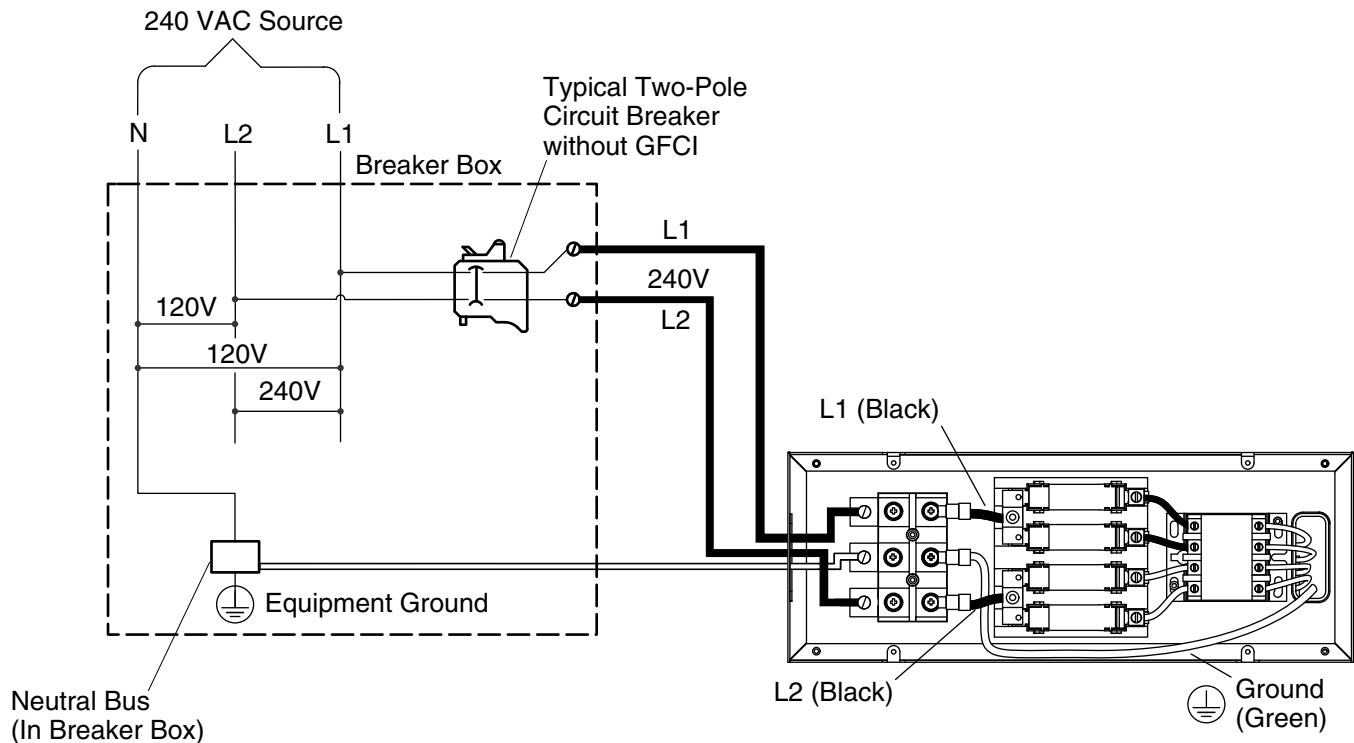
NOTE: When possible, use 45° elbows. Performance will be increased when 45° elbows are used.

NOTE: Always install a union fitting (supplied) as close as possible to the steam generator.

- Add blocking behind the desired steam head location.
- Install and secure a 1/2" NPT elbow to the blocking directly behind the desired steam head location.
- Install a temporary 1/2" copper nipple that extends through the finished wall.

Model Product Information

Model	K-5533-NA	K-5535-NA	K-5546-NA	K-5547-NA
Weight	53 lb (24 kg)	53 lb (24 kg)	106 lb (48.1 kg)	106 lb (48.1 kg)
Water Supply	1/2" copper line	1/2" copper line	1/2" copper line	1/2" copper line
Steam Line	1/2" copper line	1/2" copper line	1/2" copper line	1/2" copper line
Pressure Relief Valve (supplied)	3/4" NPT female thread	3/4" NPT female thread	3/4" NPT female thread	3/4" NPT female thread
Drain Line Valve	3/8" NPT	3/8" NPT	3/8" NPT	3/8" NPT



Electrician to provide suitable strain relief cable.

6. Connect the Electrical Supply



WARNING: Risk of electrocution. Disconnect all power before performing these installation steps.

NOTICE: All electrical work should be done by a qualified electrician.

NOTICE: All electrical wiring must be done in accordance with local codes.

NOTICE: Each steam generator requires a dedicated circuit. Dual steam generator installations require a second dedicated circuit.

IMPORTANT! Make sure that the water supply to the steam generator is turned on before connecting the electrical supply.

Connect the Power

- Turn off all electricity to the working area at the main circuit breaker panel.
- Connect a 240 VAC electrical line to the wires labeled "L1," "L2," and the green (ground) wire coming out of the steam generator field service box located on top of the steam generator.
- Confirm that the ground connection has been made in the field service box.
- Close the field service box.
- Turn on the main power.
- The function light should display a green light. If the function light is not green, consult the "Troubleshooting" section or contact the Customer Care Center using the number located on the back of this document.



Warning Label

7. Complete the Installation

- Remove the adhesive backing from the warning label provided and apply the label to the wall of the shower or steam enclosure.
- Install the steam housing and steam head following the instructions packed with the Steam Control Kit.
- Install the steam control following the instructions packed with the Steam Control Kit.
- To operate the steam control, follow the operating instructions provided with the Steam Control Kit.

Troubleshooting



CAUTION: Risk of personal injury. Troubleshooting steps involving internal wiring or electrical connections should be performed by a qualified electrician.

NOTE: The troubleshooting steps below only apply to the steam generator itself. For issues involving the steam control, refer to the "Troubleshooting" section for the Steam Control Kit.

NOTE: For service parts information, visit your product page at kohler.com/serviceparts.

This troubleshooting guide is for general aid only. For service and installation issues and concerns, call 1-800-4KOHLER.

Symptoms	Probable Causes	Recommended Action
1. The green LED light is not on, and there is no steam from the steam head.	A. No electrical power at the steam generator.	A1. Reset the electrical power at the circuit breaker.
		A2. Have a qualified electrician verify that 240 V of power is present at the steam generator.
	B. Circuit breaker is in the "Off" position.	B. Turn on the electrical power at the breaker.
	C. Circuit breaker is not the correct size.	C. Verify that the circuit breaker is the correct size. Replace the circuit breaker if it is the wrong size.
	D. Electrical connection in the steam generator field service box is loose.	D. Turn off all electrical power to the steam generator. Have a qualified electrician open the steam generator field service box and check/repair the connections.

Troubleshooting (cont.)		
Symptoms	Probable Causes	Recommended Action
2. The green LED light is on, but there is no steam from the steam head.	A. The water is turned off.	A. Turn on the water supply.
	B. The inlet screen is plugged.	B. Remove and clean the inlet screen.
	C. Excessive back pressure caused by too long a run of piping or too many 90° elbows.	C. Move the steam generator closer to the steam head or use 45° elbows.
	D. Water blockage due to a steam trapway in the steam line. A steam trapway is caused by steam line piping running down from the steam generator and then back up to the steam head.	D. Change the steam pipe to slope down from the steam head to the steam generator.
	E. The steam control is not connected.	E1. Check the wiring connections according to the steam control installation and care guide. E2. Use the troubleshooting kit attached to the steam generator to troubleshoot connection problems.
3. There is a continuous flow of water from the steam head. Water flow during the power clean cycle is normal.	A. Internal steam generator components are not working.	A1. Shut off the water supply, and drain the water from the steam generator. Close the drain valve.
		A2. Partially open the water supply shut-off valve.
		A3. Allow the water to gradually fill the steam generator tank (may take several minutes). If the water continues to flow from the steam head, repeat A1 above.
		A4. Fully open the water supply shut-off valve.
		A5. On models with power clean option only: If water continues to flow from the steam head, run the power clean cycle.
	A6. If water continues to flow from the steam head, contact the Customer Care Center using the information on the back of this guide.	
B. The water supply is incorrectly connected to the steam generator.	B. Review this manual, and if necessary reconnect the water supply to the proper location.	
4. Steam is coming out of the steam head and the control is shut off.	A. Elevations over 6000' (1829 m) above sea level can cause water to boil at lower temperatures.	A. At elevations over 6000' (1829 m) above sea level contact Kohler Co. Customer Care Center for instructions on disconnecting the fast start coil.

Warranty

KOHLER Steam Generator THREE-YEAR LIMITED WARRANTY

Kohler steam generator units manufactured after September 15, 2001, are warranted to the original consumer purchaser to be free of manufacturing defects in material and workmanship during normal residential usage