



Important: Locate Publication No. 199ES "Steam Bath Important Safety Instructions". This publication includes a Warning label which the Installer must secure to the wall near the entrance to the steam room in a highly visible location. This label and its additional safety information are packaged with the generator in the envelope containing the installation instructions. If it is lost or missing contact EliteSteam (800-555-6890) for a replacement Publication No. 199ES. This publication along with all documents must be left with the owner.

Control Features

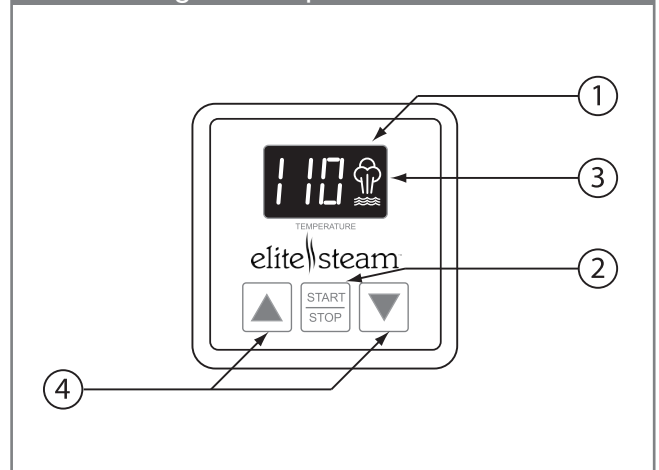
- 1. Temperature Display:** Indicates steamroom or setpoint temperature.
- 2. Start/Stop Keypad:** Press keypad and generator will begin producing steam in a few minutes. The generator will remain on for 30 minutes. Pressing the keypad a second time will stop the steam generator.
- 3. Steam Icon:** Indicates the generator is producing steam when illuminated. The heater in the generator and the steam icon will cycle on and off as the temperature is maintained automatically in the steamroom.
- 4. Up/Down Keypads:** Press to adjust the temperature setpoint.

IMPORTANT: This control must be installed inside the steam-room for proper operation of the system.

Cleaning Instructions: Use a damp cloth and mild soap. Do NOT use abrasive cleaners which might scratch the surface or the base of the control.

Important: This control is designed to work only with Steamist ES series generators.

EC-150 Digital Temperature Control



Installation Instructions

1. Pre-Installation - Control Location

- a) The EC-150 Control must be installed inside the steam-room. For convenience the recommended height from the floor is four feet. Provide a 1½" hole in the wall at this location (see Figure 1).

IMPORTANT: Multi-conductor cable must be installed so that the end will not be buried inside the wall. The unit will not operate unless the control is installed.

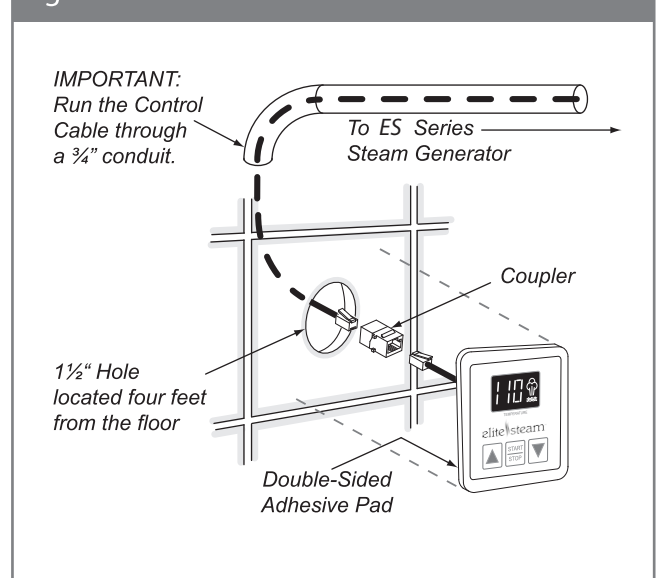
2. Electrical Rough-in

- a) Remove the multi-conductor cable from the control packing box. Carefully route the multi-conductor control cable from the steam generator to the EC-150 located inside the steamroom (see Figure 2 and Figure 3). Route multi-conductor cable through a ¾" conduit to protect the cable from damage and to facilitate replacement if necessary.

3. Control and Cable Installation

- a) Locate the previously installed cable and black plastic strain relief clamp which is in the control packing box. Locate the knockout on the steam generator for the control cable (see Figure 3).
- b) Place strain relief around cable about seven inches from the end and insert into the hole. Remove the protective covering labeled "Remove Before Installation" from the modular jack found on the PC board.
- c) Remove the protective cap from the multi-conductor cable plug. Connect the cable to the modular jack.
- d) Close and secure generator cover.

Figure 1



- e) Locate Telco Jack at female coupler, on back of the EC-150 control. Remove the protective covering labeled "Remove Before Installation". Remove protective cap from cable and plug into jack. Check that the orientation of the plug properly aligns with the jack. A snap will indicate the plug is installed correctly (see Figure 3).

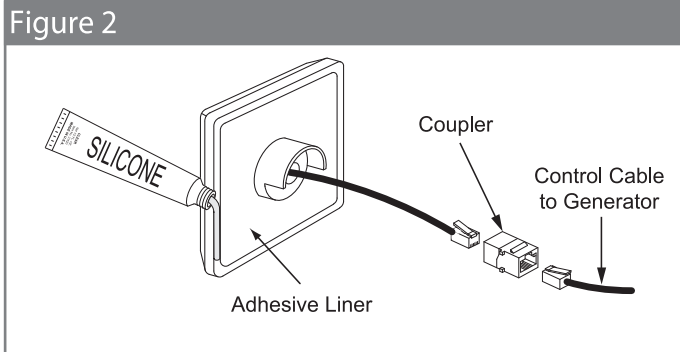
Operating Instructions

Model: EC-150

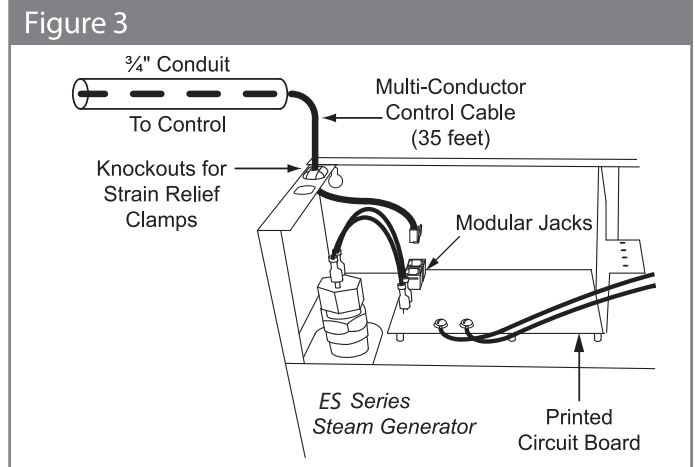
WARNING: Test the control for operation before continuing on to the next step.

- f) Peel adhesive liner from back of the control. Apply the control to the wall. Press firmly and hold for a few seconds.
- g) After the control is in place, apply silicone (supplied)

around the control to form a watertight seal.



IMPORTANT: The adhesive on the back of the EC-150 control will NOT seal this control. It is the responsibility of the installer to seal this control to the wall with the supplied silicone. Water damage to the control is not covered by the warranty.



Operating Instructions

Operation: Make sure the water and power are turned on. Simply press the Start/Stop keypad to begin the previously programmed cycle. Pressing the Start/Stop keypad a second time will cancel the cycle. After a cycle is started it will take a few minutes for the Steam Generator to heat up and begin producing steam. During operation the display will show the ambient temperature. The heat icon will cycle on and off as the temperature is maintained.

Programming: Adjustments can be made to the temperature control while the system is on or off. Any time the temperature is displayed, it can be adjusted by simply pressing the Up or Down keypad. All changes made to the temperature control are stored in memory until changed again. The temperature range is 50°F to 125°F (10°C to 51°C).

Additional Features

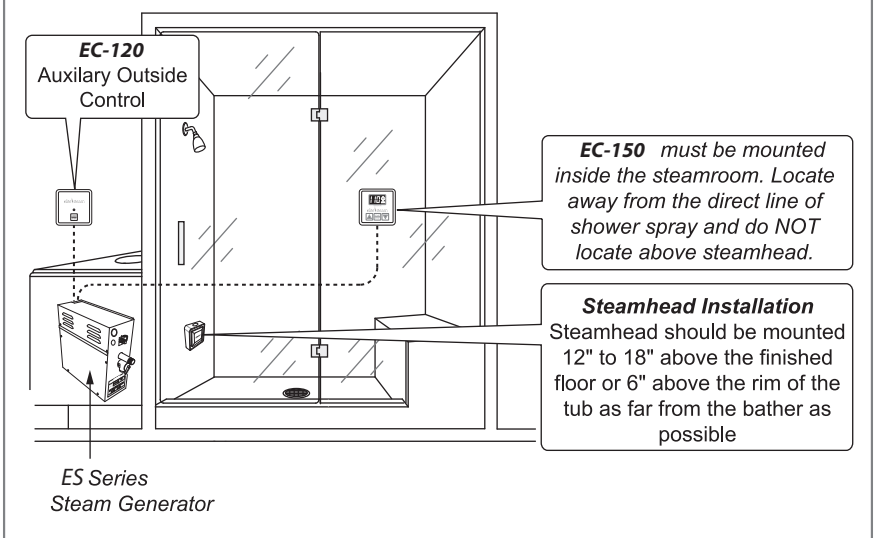
Memory: The temperature setpoint is retained even if there is a power failure.

Fahrenheit/Celsius: The temperature display may be changed to Fahrenheit or Celsius by simultaneously pressing and holding the Up and Down keypad for 5 seconds while the system is off. The display will show the current setting "F" or "C" and then alternate when the change is complete.

Error Messages: This control is programmed with a diagnostic feature to help isolate any potential problems. Error messages E0, E1, E2 and E3 indicate a problem internal to the control. If this occurs, the control should be repaired or replaced. Error messages E4, E5 and E6 indicate a communication problem with the steam generator. If this error occurs, check both ends of the control cable for clean, dry and secure connections. Dirty contacts can be cleaned with alcohol and a cotton swab or a toothbrush. This can also happen if the control is not sealed and the cable connections get wet

Figure 4 - Installation Suggestions

All Instructions must be given to the homeowner for future use.





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Steambath Generators

Models: ES-4, ES-6, ES-7 and ES-10



Important: Locate Publication No. 199ES "Steam Bath Important Safety Instructions". This publication includes a Warning label which the Installer must secure to the wall near the entrance to the steam room in a highly visible location. This label and its additional safety information are packaged with the generator in the envelope containing the installation instructions. If it is lost or missing contact EliteSteam (800-555-6890) for a replacement Publication No. 199ES. This publication along with all documents must be left with the owner.

EliteSteam "ES" Generator operates with one or two controls appropriately located inside and/or outside the steamroom. It's small enough in size to be tucked away using very little space in a vanity, closet, basement, or an insulated attic, but large enough to provide steam for most residential baths.

EliteSteam "ES" Steambath Generator comes factory assembled, carefully wired and tested.

1. Pre-Installation

- Proper electrical supply (240 Volt): See rating label on Steam Generator and Chart on back page. Determine proper size of wire, voltage, amperage, and phase for the Steam Generator. 90°C copper wire is required for generator connection.
- Dedicated overcurrent protection device, such as an in-line fuse/circuit breaker required: Fuse/circuit breaker to be installed must be sized in accordance with chart on back page. Do NOT install a GFI (Ground Fault Interrupter) to this equipment (per article 210-8 in the National Electric Code).
- Route power supply cable to the location where the Steam Generator will be installed (before walls are closed).

2. Electrical Rough-in

- At this time read through the installation instructions for the selected control(s).
- Route appropriate power cable to the location the Steam Generator will be installed. If receptacle is desired, mount the box for the receptacle near the location of the Steam Generator.

NOTE: The plug and receptacle require a rating of no less than 250V and proper amperage. Refer to chart on page 4 for amperage rating.

After the walls are complete, the Steam Generator and Control can be wired.

3. Steam Generator Electrical Installation

WARNING: All power to the Steam Generator must be turned off.

- Remove the two screws holding the electrical access cover and remove cover.

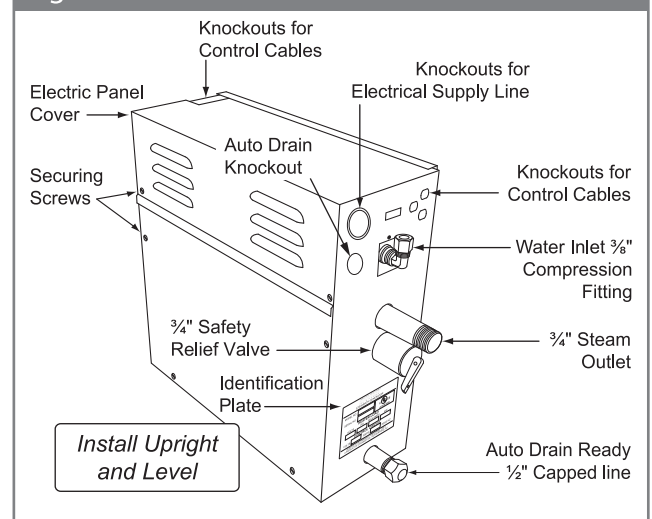
IMPORTANT: The warranty of this product is voided if it is used in a commercial application or for anything other than a residential steam bath installation. All electrical connections must be performed by a licensed electrician in accordance with Local and National Electric Codes. This product is not intended for use with Home Automation systems.

- Locate the supply line knockout. Mount proper strain relief into knockout hole (see Figure 2: Internal Electrical Connections).
 - Strip back power cable's outer insulation jacket eight inches and insert into Steam Generator. Strip back insulation ½" from the three (3) incoming wires (two power and one ground).
 - Connect incoming ground wire to floating green pigtail labeled "GND."
- CAUTION:** Be sure the ground wire does not come in contact with a live electrical part.
- Connect incoming power to floating black pigtail leads labeled "L1" and "L2" (see Figure 2: Internal Electrical Connections).
 - The Steam Generator is ready for operation once the installation of the controls is completed (refer to separate Installation and Operating Instructions).

4. Optional Auto Drain Valve Connection

- Open knockout for Auto Drain Valve conduit connection.
- Route flexible conduit from valve to knockout and secure.
- Connect two wires from valve to the two place terminal strip provided (see figure 2).

Figure 1 - Steam Generator



Checklist

Models: ES-4, ES-6, ES-7 and ES-10

Before starting, insure that the conditions of the following checklist have been met:

- The proper size Steam Generator has been selected by using the sizing page in the "Full Line Brochure," "Pricing Guide," or "The Generator Sizing Guide" in the Residential Systems/Steambath Product Information section of the Steamist web site - www.steamist.com.
- CAUTION:** An improperly sized Steam Generator will NOT produce the amount of steam necessary to reach selected temperature.
- The proper voltage Steam Generator has been selected (i.e., 240V). A 240V Generator operating on 208V will result in a 25% loss of power.
- The Steam Generator is installed in an upright position.
- The proper sized 90°C copper wire and circuit breaker have been used.
- The circuit breaker is NOT a GFI (Ground Fault Interrupter) type.
- The Steam Generator is properly grounded.
- The circuit breaker or disconnect switch is on.
- Water supply is open to the Steam Generator.

Figure 2 - Internal Electrical Connections

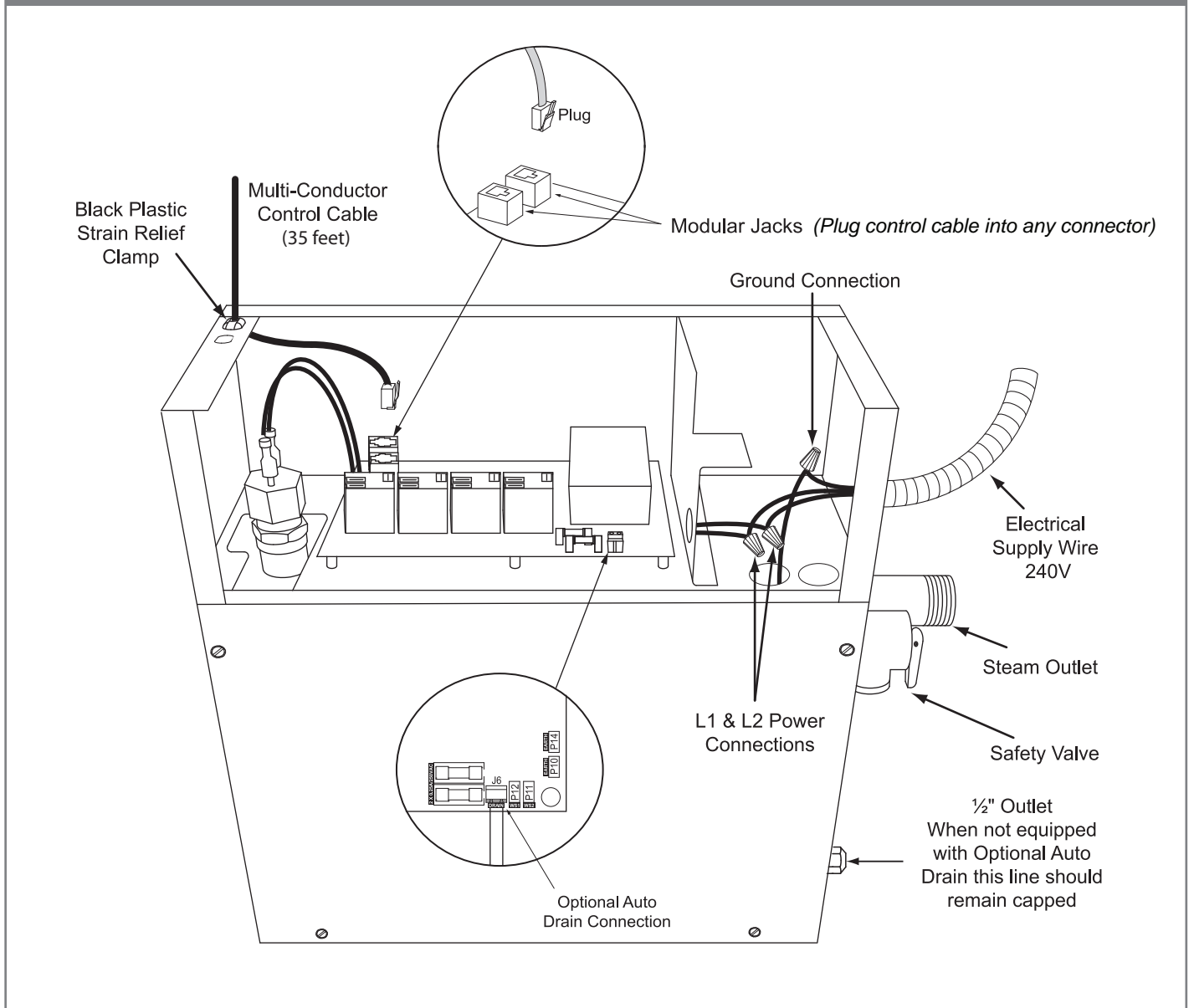


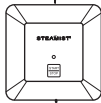
Figure 3 - Typical Installation

Models: ES-4, ES-6, ES-7 and ES-10

The Electrical Instructions must be given to the homeowner for future use.

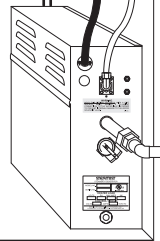
NOTE: Unit must be wired with 90°C copper wire in a suitable raceway, or, if local codes allow, provide twist lock plug on a 90°C copper wire cord from generator to a 250V 2-pole, 3-wire grounding receptacle (amperage rating as required).

EC-120
Auxiliary Outside
Control



Control Cable
Route from
Control to Steam
Generator in a
3/4" conduit.

Appropriately
fuse protected
240V field
wiring to Steam
Generator.



Inside Installation
Control should be mounted four feet from the floor. Select a location convenient to the bather but not in a direct line of Shower or Body Sprays and not directly above the Steamhead.

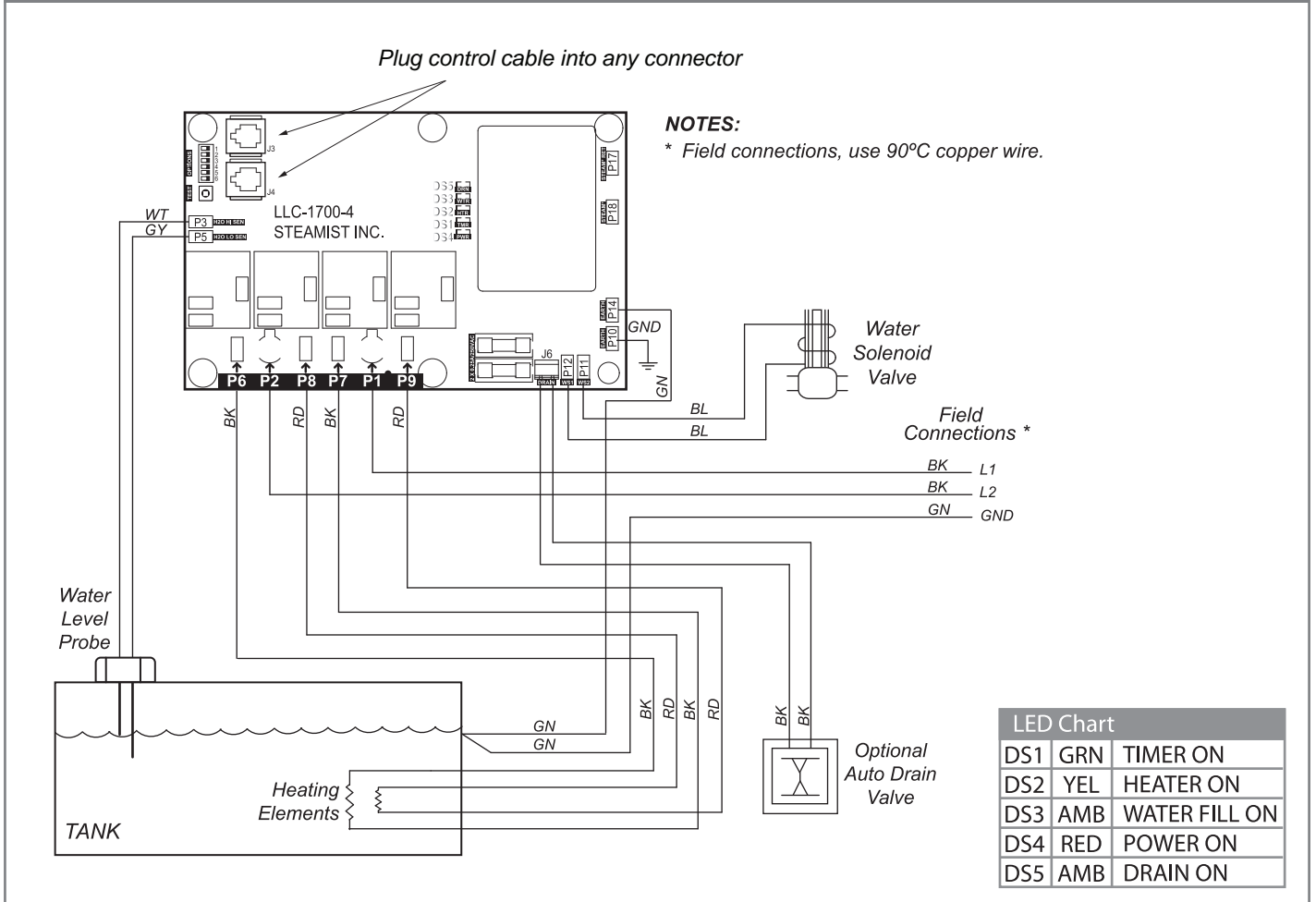
EC-150 Control
MUST be installed
inside the steam room.



IMPORTANT: Run the Control Cable through a 3/4" conduit. Remove protective cap when making the final connection to Control.

Wiring Diagram

Models: ES-4, ES-6, ES-7 and ES-10



Specification Chart

Model No.	Max. Adjusted Cu. Ft. For Area Up To	KW	Volt	Phase	Amps	Breaker Size	*Minimum Wire Size
ES-4	75	4.5	240	1	19	25	10
ES-6	150	6	240	1	25	30	10
ES-7	250	7.5	240	1	31	40	8
ES-10	450	10	240	1	42	50	6

* 90°C Copper wire is required for steam generator connection. Minimum wire size shown. Installation shall be in accordance with NEC and local Electrical Codes.



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The EliteSteam "ES" Generator comes factory assembled, carefully wired and tested.

WARNING: All electrical power should be turned OFF when working with Steam Generator.

IMPORTANT: The Plumbing Installation must conform to local and national codes.

1. Pre-Installation

- a) Be sure that the proper size Steam Generator has been selected by using the sizing page in the "The Generator Sizing Guide".

CAUTION: An improperly sized Steam Generator may NOT produce the amount of steam necessary to reach selected temperature.

- b) For optimum performance, the Steam Generator should be located as close as possible to the Steamroom, Shower or tub enclosure using a 3/4" copper pipe (1/2" copper pipe is also acceptable, but not preferred). If the steam pipe exceeds ten feet, it should be insulated using appropriate pipe insulation rated for a minimum of 212° F. Maximum steam pipe distance should not exceed a total of fifty linear feet. Refer to Installation Suggestions on page 4.

CAUTION: Do NOT install near flammable material such as paints, thinners, gasoline, etc.

CAUTION: Steam generators must NOT be installed outdoors, in moist, humid areas, in areas prone to freezing, or extreme heat such as an unventilated attic. To do so will void the warranty.

- c) The steam line and safety valve reach a temperature of 212°F during operation and should be appropriately protected to prevent personal injury by accidental contact.

2. Plumbing Rough-in

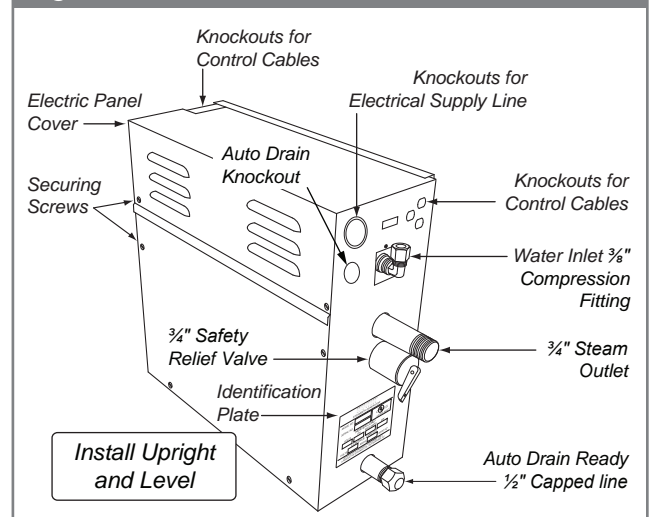
Plumbing rough-in is required for the water supply and steam line; this should be completed before the walls are closed. For operation, the "ES" Steam Generator requires a 3/8" O.D. copper tubing to the fitting on the generator for water inlet and a 3/4" copper or brass pipe for steam outlet.

NOTE: Safety Valve should be connected using a union to a minimum 3/4" indirect waste or as required by local plumbing codes. In the unlikely event this valve should open, the discharge must be directed to prevent damage to the home. Do NOT connect the Safety Valve output to the steam line.

- a) **Water Inlet** - Rough in a water line, 120 PSI max, to the hot or cold supply. A shut off valve with a 3/8" connection to the steam generator is to be provided at the generator location (see Figure 4 on page 3).
- b) **Steam Outlet** - Rough in the steam line using a 3/4" Brass pipe or Copper tube with sweated fittings only. Do NOT use plastic pipe or fittings. Do not use any push-fit, snap-fit or anything else that is not specifically rated for 212°F steam. Do NOT use Black Iron or Galvanized pipe to avoid rust and discoloration to steam room. The steam head location should be 12" to 18" above the steam room floor or 6" above a rim of a bathtub and as far from the seating area and user control as possible.

CAUTION: No shutoff valve can be installed in the steam line. Do NOT create traps or valleys in this line which would trap condensation and block the flow of steam. The steam pipe should be pitched toward the Steam Generator allowing condensation to run back toward the Steam Generator (preferred), or toward the steamhead. If the steam generator is equipped with a drain valve, do NOT connect the drain pipe to the steam line.

Figure 1 - Steam Generator



IMPORTANT: The warranty of this product is voided if it is used in a commercial application or for anything other than a residential steambath installation. This product is not intended for use with Home Automation systems.

Installation Instructions

Models: ES-4, ES-6, ES-7 and ES-10

3. Steam Generator Installation

The Steam Generator should be mounted in a location convenient for hook-up and service by the plumber and electrician.

CAUTION: The Steam Generator is designed to be used ONLY in an upright and level position; to do otherwise would damage the unit and void the warranty.

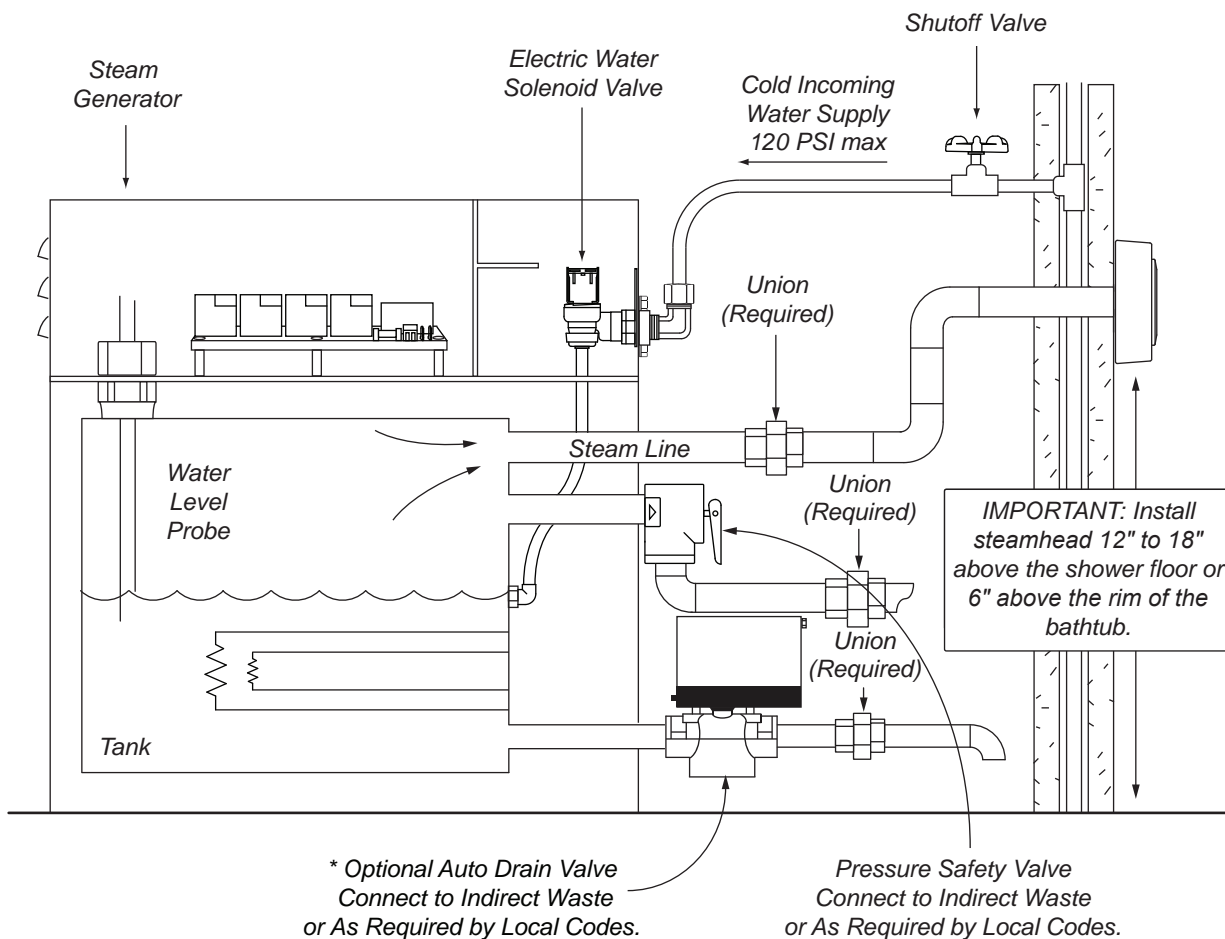
a) The Steam Generator can be mounted to a wall or set on the floor. However, the unit must be secured. To secure the unit to a vertical wall, loosen the two screws holding the electrical access cover, remove cover (see Figure 1). Located inside the cabinet near the top left and right corners are mounting holes. Place top cover back and secure.

b) Connect the 3/8" water inlet to a shut off valve as described in Section 2.a. The valve must be kept in an open position during normal operation. In an area where water hammer is a problem install a water hammer arrestor in the line. Refer to Figure 2.

IMPORTANT: Do NOT use a "saddle valve" or piercing type valve for water connection.

c) Connect the steam line from rough-in location described in Section 2 to the 3/4" nipple on the Steam Generator using a union.

Figure 2 - Plumbing Diagram

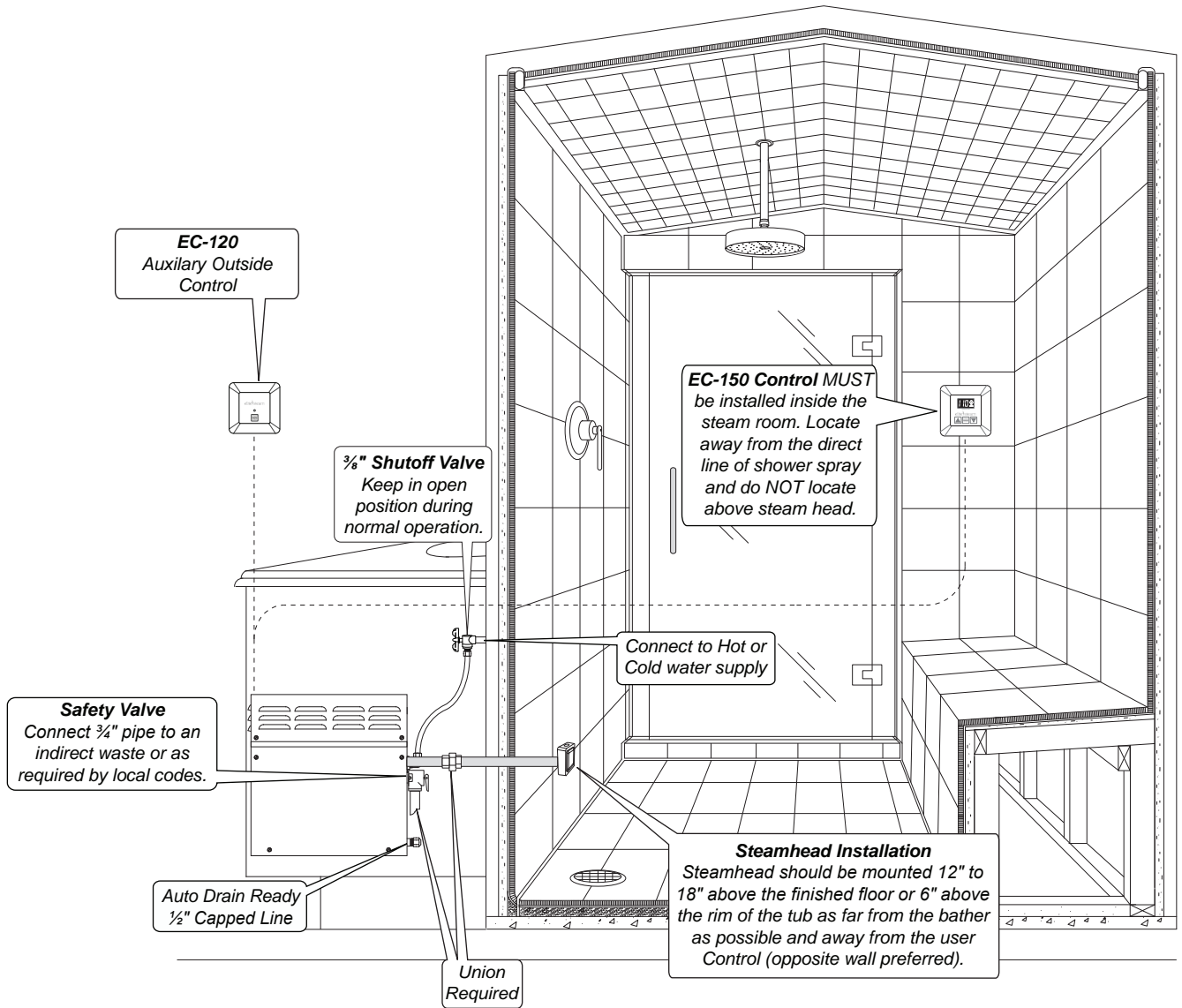


*** NOTE:** If an Optional Auto Drain Valve is not being installed, do NOT remove the cap from the drain connection.

Figure 4 - Typical Installation

Models: ES-4, ES-6, ES-7 and ES-10

The Plumbing Instructions must be given to the homeowner for future use.



Steam Outlet Pipe - Use a 3/4" Copper or Brass pipe.

CAUTION: Do NOT install a shutoff valve on the steam outlet pipe. Do NOT create traps or valleys in this line which would prevent the flow of steam. The steam outlet pipe should be pitched toward the Steam Generator (preferred), allowing condensation to run back into the Steam Generator or toward the steamhead. If the steam pipe exceeds ten feet, use an appropriate pipe insulation rated for a minimum of 212°F.

IMPORTANT: Union MUST be used on Steam Line, Safety Relief Valve, and Drain line.

Access Requirements

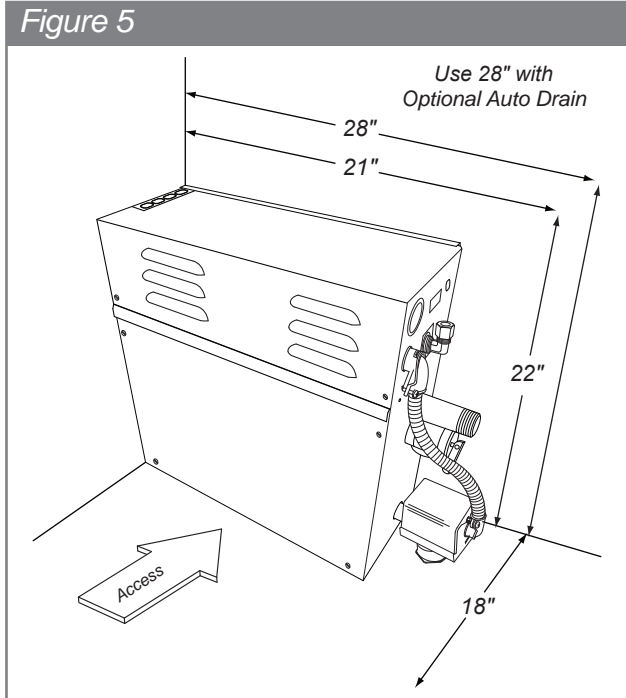
Models: ES-4, ES-6, ES-7 and ES-10

Select a location for mounting the Steam Generator that is accessible for installation and service. The access requirement indicates the minimum space for convenient access to Steam Generator.

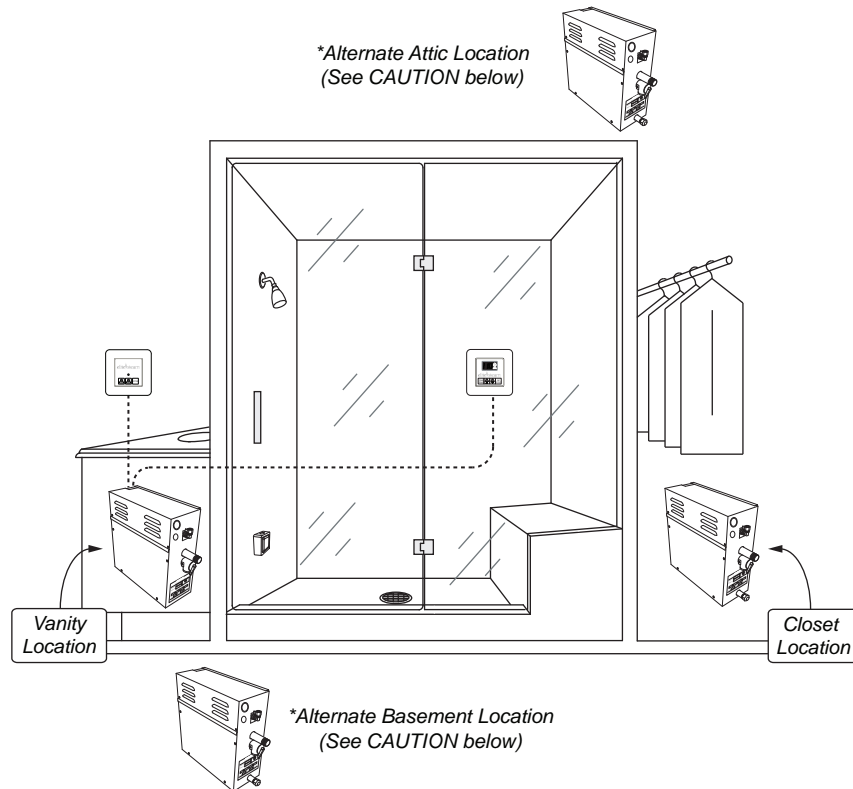
CAUTION: Do NOT install near flammable material such as paints, thinners, gasoline, etc.

NOTE: This steam generator is NOT intended to be used for space heating purposes.

IMPORTANT: Steam Generator must be installed upright and level. The serial number info should be visible and the Steam Generator should be accessible for service.



Installation Suggestions



***CAUTION:** Steam generators must NOT be installed outdoors, in moist, humid areas, in areas prone to freezing, or extreme heat such as an unventilated attic, to do so will void the warranty. The steam generator MUST be installed indoors and in an area where the temperature is limited to 50°F - 104°F.