TOLO - E Steam Generator Manual



DO NOT use locking pliers to over tight the DRAIN PIPE connection

Please read the manual carefully before installation and keep the manual for further reference

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1. Introduction

Thank you for choosing TOLO - E series steam generator with well-designed structure, steady performance and convenient installation. The steam bath is designed to remove tiredness, relax muscles and stimulate blood circulation.

For proper installation, operation, maintenance, and the customer's safety as well, please read all instructions carefully and keep this manual for further reference.

2. Safety Warning

- This appliance is not intended for use by person with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Supervise children at all times.
- Check steam room before restart the controller.
- Smoking and alcohol are not allowed inside the steam room.
- Leave the steam room immediately when feels uncomfortable.
- A ventilation fan is required for the steam room.
- This steam generator is for heating up the steam room, please don't change its functions or usage by yourself, unless under the help or the guide of someone who can be responsible for the safety.

When you go out, or may not use steam generator in long time, please DISCONNECT the steam generator general power supply and general water supply.

3. Install Cautions

- If the generator is installed at a place where difficult for customer to access, the water supply valve must be easy to access for emergencies.
- GFCI must be installed on the power supply, and the power supply, power wire, fuse and breaker must comply with the nameplate on the unit and table 2 in this manual.



- The solenoid valve can endure maximum 0.8MPa (8kg/cm2) water pressure. To protect the solenoid valve from extremely high water pressure, please turn down the inlet slightly or install water pressure relieving valve.
- Do not install saddle-backed or needle valves on the inlet. Please dredge and clean the pipe before installation.
- No block valve should be installed in the steam pipelines. Strictly no blocked or blended pipe, otherwise will have negative effect on the flow of steam and condensate. The steam pipelines should be installed with a slight angle so that the condensate can flow back to the generator or the steam head.
- Steam generator should be installed indoor to avoid frozen. The generator should be installed and leveled with the arrow pointing upward at an easy-access place, otherwise do not switch on.
- The steam pipeline must be copper pipes or stainless steel pipes, all other material such as plastic, acrylic should not be used since they cannot endure 150° C or higher temperature.
- All inlet and apertures should be sealed to prevent any leakage of steam and to protect the generator and customers.
- Don't directly drain to the steam room, as water from the water tank is very hot and may cause serious scald and damage the steam room.
- All inlet water pipes and steam pipelines should be built according to the National Standard and this should be done before sealing the wall.

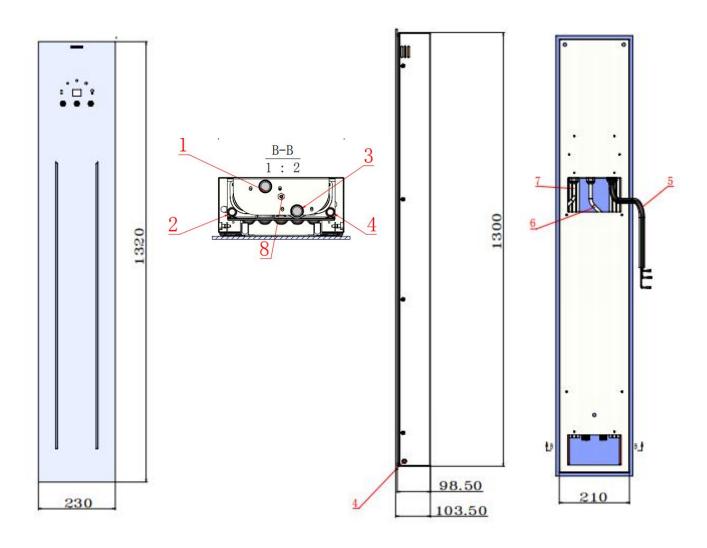
4. Parameters

4.1. Models, parameters and dimension

(Only apply to European style voltage and phase)

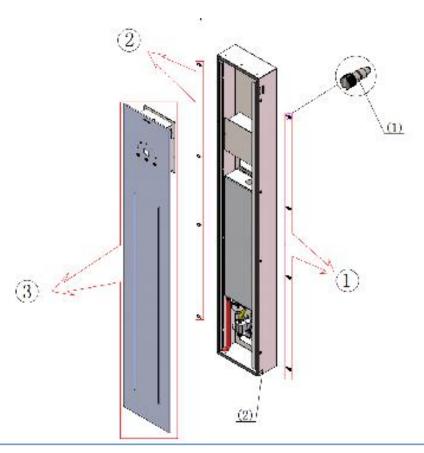
Table 2

Model	Power (kW)	Phase	Heating elements (N*kW)	Voltage/Current (V/A)	Power wire (N*mm²)	Breake r (A)	Room volume (m³)	Dimension (L*W*H) (mm)
E-30	3.0	1	2*1.5	220-240/13.6	3*2.5	16	2~3	
E-40	4.0	1	2*2.0	220-240/18.2	3*2.5	25	3~5	
E-45	4.5	1	1.5+2.0	220-240/20.5	3*2.5	25	3.5~5.5	230*103.5*13
E-50	5.0	1	2*2.5	220-240/22.7	3*2.5	32	4~6	
E-60	6.0	1	2*3.0	220-240/27.3	3*4.0	40	5~7	

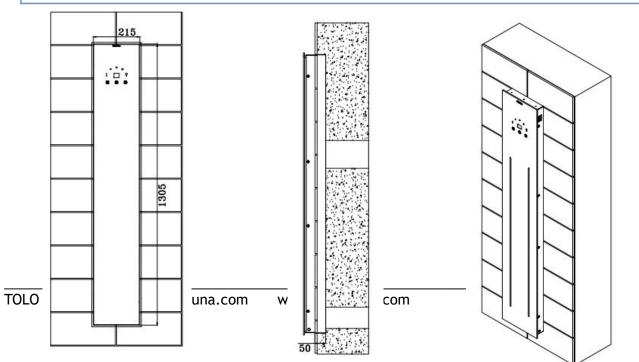


#1: water inlet 1/2": #3 : Water drain 1/2" #2, #4: Steam outlet; #5: Electric wire (only 220V single phase), 2 meters, must install Leakage Protection. #6, #7: communication cable. #8: After-service hole

4.1.1. Installation schema



- #① #②: the location of screws, unscrew those screws can take off the front glass panel;
- #(1): Special screws for fixing the front glass panel;
- #3: the front glass panel (fragile, be careful)
- #(2): Steam outlet



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5. Operating instructions

Steam generator operation instructions:

ON/OFF the steam generator:

Press the ON/OFF button: turn on the machine, begins to fill in water & heat up etc....

The color light:

The first time press: turn on the lights, and then begins the automatic cycle color

changing.

The second time press: select a color and fix it in that color.

The third time press: turn off the lights.

The color light is only for decorating use, not enough for illumination.

Working time setting:

Default time: 45 mins. Auto off when time arrived.

Working temperature setting:

Default temperature: 45 °C

Set point: 35° C, 40° C, 45° C, 50° C, 55° C

Music:

By bluetooth

When connecting the bluetooth, press the button for one time.

After well connected, press the button means change into the following song.

Can't control volume on the steam generator.

Can't turn off the music on the steam generator.

Power range: 4.5KW & 6.0 KW

Voltage and phase: EU type: 220V single phase only; USA type: 220V 2 phases only.

Ways for installation:

The steam generator body is inserted into the wall, but not fully inserted.

Water inlet: on the back side of the steam generator, 1/2";

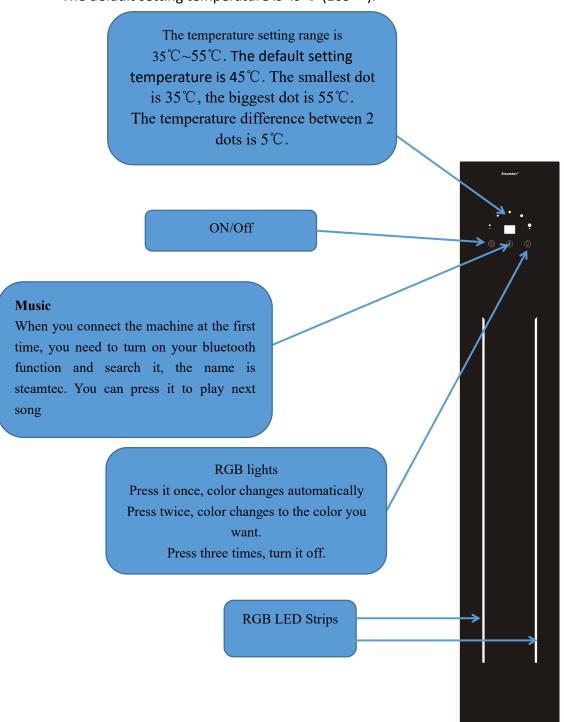
<u>Water outlet:</u> on the back side of the steam generator, with auto drain valve build in, 3/4";

Power supply: on the back side of the steam generator; not use terminal blocks, but

with prepared power wire;

Temperature setting:

The temperature setting range is 35 $^{\circ}$ C \sim 55 $^{\circ}$ C (95 $^{\circ}$ F \sim 131 $^{\circ}$ F). The default setting temperature is 45 $^{\circ}$ C (109 $^{\circ}$ F).



6. Installation

6.1. Installation cautions

- ◆ DO NOT use locking pliers to over tight the DRAIN PIPE connection.
- Before installation, MUST read all the install cautions in this manual, on page 4.

Selecting the proper steam generator

In order to achieve comfort and relaxation, as well as energy efficiency, the selection of the correct steam generator model and size are as critical as design of the steam room itself. The power supply and circuit protector should be carefully checked to match the parameters of the generator. Please referring to the table 2 & its notice and select the suitable model for your specification.

6.2. Installation of steam generator body

6.2.1. Cautions

- Switch off all power supply before installation, and check whether you have the correct model for your steam room according to table 2 & its notice.
- A manual resetting 120°C temperature control switch is installed in the steam generator for over-heat protection. If temperature of inner tank exceeds 120°C accidentally, the switch will automatically disconnect power supply to heating elements. In this case, it is necessary to disconnect the power supply to steam generator, and then carefully check heating elements, water level sensor, relay on sub-board and water supply pipeline after steam generator completely cooling-down. The temperature switch could only be manually reset after the fault has been located and solved.
- Do not install the generator outdoors, in wet/moist place, freezing, or corrosive place. Do not
 install the generator near to inflammables such oil paint, diluents and fuel. Be alert to the steam
 pipeline and safety valve since the high temperature of steam is dangerous to customers.
- Generator must be level installed.
- The generator should be installed in a dry and well-ventilated place. It can be installed either on the wall or on the ground, but must be well fixed. Install the generator as close to steam room as possible, such as in the closet, under the washing basin or in the basement. (Refer to figure 3).

6.2.2. Cautions

The controller wire and temperature sensor wire should NOT be parallel to or intersect with the power wire. The temperature sensor should NOT be installed on the side of the wall which is behind the door, when the door is opened and the controller should NOT be installed in any moist place.

6.2.3. Installation of controller

The controller should be installed with height of 1.2 m outside the steam room but nearby



or other place where easy to operate. Use 3M glue fixation or glass glue fixation to settle it on the wall.

Installation Of Control Wire: there are two connection cables on the controller, put the 4 pin cable connected with the controller aviation plug(Refer to figure 4).

Caution: The temperature wire should **NOT** be parallel to or intersect with the power wire.

Caution: The temperature sensor should **NOT** be installed on the side of the wall which is behind the door when the door is opened.

i. Water Inlet

First connect the water magnetizer (if applicable) to the water inlet solenoid valve. Then please use a 1/2" flexible stainless steel hose to connect the other side of the water magnetizer and the water supply pipeline. Do not connect to metal water supply pipeline directly because which may damage the water inlet valve.

Attention: Only use cold water supply.

ii. Drain Outlet

Please use 1/2" copper pipe or stainless steel pipe to connect the drain outlet and the drain pipeline of the house. The drain pipeline should be installed with small angle so as to help residual water in the steam generator flow to the drain pipe.

Attention: Don't use locking pliers to over tight the drain pipe connection. Just make sure it without leakage under Teflon tape sealing. The water come out from the steam generator will over 100°C. Don't use the plastic pipe/acrylic pipe/FRP pipe or other similar material pipe.

iii. Steam outlet

Use copper or stainless steel pipe to connect the steam head and the steam outlet pipe of the generator. The pipe should be less than 3 meters long and minimize the number of elbows, otherwise heat isolating methods should be implemented.

• For steam generator, steam outlet is 1/2", please use **AT LEAST** 1/2" steam pipe, must be stainless steel pipe or copper pipe.

<u>Attention:</u> Please **MUST** choose right diameter pipe size, as if the pipe size is smaller than our instruction, it may cause the steam generator internal pressure to increase suddenly which may damage the steam generator and have safety risks.

6.3. Installation of electrical

Cautions

- All circuits should be installed by licensed electricians and conform to local and national codes.
- Power supply must be cut off before installation, maintenance and repair. Press the on/off

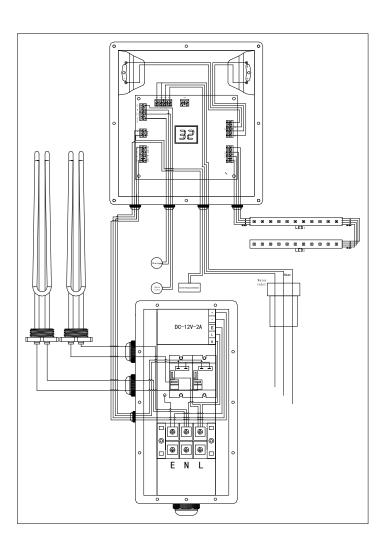


button on the controller cannot cut power from the supply.

- No additional power supply or wire is allowed to connect to the generator. Do not connect the ground wire to the neutral wire.
- Only the original parts and elements from our factory are allowed to be used in installation, operation, maintenance and repair.
- After the installation of the pipeline and electrical circuits, carefully checking must be performed before switch on the generator.
- The generator has been carefully installed, checked and tested in factory, thus customer only need to install the power wire, control wire and temperature sensor etc.
- The power supply should be 215-240V or 380-415V, 50/60Hz, please refer to the nameplate of the generator.
- The selection of fuse and breaker must strictly follow the data in table 2.
- Choose the suitable power wire according to table 2 and local codes.
- Take off the back cover of the generator, insert the 3-core power wire (single phase, 215-240V, 50/60Hz) into the hole at the back of the generator case and connect to the correct terminal.

6.3.1. Wiring diagram

Steam generator Schematic Diagram



7. Maintenance

- As leakage of the steam will damage the equipment. To prevent any hazard, steam generators, steam head, parts and pipe line connections should be checked regularly.
- Clean the solenoid valve, magnetizer and all the other sets in the pipe line regularly according to the local water quality and usage of the steam generator.
- When operate, check the equipment to see whether it's over heated, check the stability and corrosion of all the wire plugs.

i. Replace the heating elements:

Switch off the steam generator and remove the element access cover when the generator completely cools down. Label the wires connect to the heating elements which need to be replaced and plug out the wires. Screw the heating elements out. Clear the scale in the water tank and screw in the heating elements after putting the rubber rings on them (airproof gasket should be pressed firmly without reversion). Plug on the wires, make sure the heating elements are properly connected before put on the element access cover.

ii. Replace the main board:

Switch off the steam generator and remove back cover when the generator completely cools down. Label the three wires which connect the upper part of the main board to the water level sensor and the source, drain valve and water inlet solenoid valve in the bottom part of the main board. Unplug these wires and remove the main board (be careful with yellow-green ground wire under the screws of the circuit board). Install the main board back carefully.

iii. Replace the sub-board:

Switch off the steam generator and remove the back cover when the generator completely cools down. Unplug all the wires on the sub-board. Label all the wires on the relay and remove the sub-board. Install the sub-board back carefully.

iv. Replace the solenoid valve, drain valve:

Switch off the steam generator and disconnect from the power and water supply. Remove the water inlet, steam outlet and draining pipelines after the generator completely cools down. Then please lean the steam generator to remove the base panel. After that, please take off the soft pipes, wires and screws so that the faulty valve could be removed. Finally please install the replacing valve carefully.

- Cut off the power supply before any maintenance.
- Test the equipment after maintenance.

8. Warranty And Services

Table 3 E Warranty Time (1 year)

Remark:

- (1) Warranty period will count from the ex-factory date of the steam generator.
- (2) Limited free warranty only including provide free spare parts and our remote services, not including any other direct or indirect costs / losses.
- (3) Limited warranty is offered to all customers. Any quality problem will be covered according to above file. Please provide the maintenance record (Regular descaling records) when you ask for warranty.
- (4) The controller warranty for 2 year is under install it outside the steam room. Inside the steam room, controller warranty is 1 year.
- (5) Our company has the right to decide whether to repair or to change. Approval must be obtained from our company before shipping back the product. The customer has to pay for the transportation fee and any parts fee beforehand.
- (6) Any clause mentioned in the manual is not covered by the warranty.
- (7) This warranty does not cover any defect, malfunction or failure cased by, or resulting from unauthorized installation, maintenance and repair, improper power supply, and any action which violates the manual.
- (8) Damage caused by accident, misusing of chemistry products, or any other reason which are beyond our company's responsibilities will not be covered. Any product whose label, nameplate has been removed, altered, damaged is not covered either.
- (9) Using in a salty environment or any other extreme, corrosive condition is not covered by the warranty.
- (10) After the free warranty period, services are still available if all cost is covered by the customer.
- (11) Our company is not responsible for any direct or indirect damage caused by the generator.
- (12) Please contact our company for further information and more details.
- (13) Tips for maintenance:

How to descale Tolo E Steam Generator?

Manual periodic cleaning

You can put solution in, and let it stay in water tank for 4-8 hours, then flush.

How frequently should descaling be done?

- *For home use: at least once per month
- *For commercial use:at least once per week

What solution can be used?

TOLO acid;

Vinegar or lemon juice, mix with water and make concentration around 10%; Or can use edible cleanser.

More information you need, please feel free to contact us at info@tolosauna.com

MAINTENANCE RECORD (Regular descaling records)								