

# Steam Engine User Manual

(The product is based on the actual product inside the packaging)  
Before using this product, please carefully read the user manual for safe, correct, and effective use.  
Please comply with the instructions for use, safety precautions, and warning content specified in this manual.

# Directory

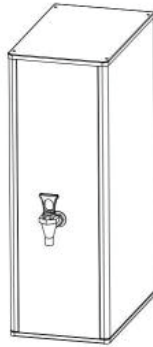
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## Daily cleaning, maintenance and parameters

1. The machine should be managed by a dedicated person and undergo regular inspections during use. When not in use during holidays or for a long period of time, the electricity and water sources should be turned off, and the water inside the container should be drained to prevent aging of internal components, ensure safe use, and extend service life.
2. Due to the influence of water quality, calcium carbonate oxide chemical deposits will naturally occur during the heating process of water. Regular descaling treatment is necessary, and it is recommended to clean it once a quarter. In areas with poor water quality, it is recommended to clean it once a month. The operation method is as follows:
  - (1) Cooling: First, turn off the power by pressing the shutdown button, then turn on the hot water faucet and continue to drain water.
  - (2) Drainage: Wait for the machine faucet to drain the water (note: there is still water in the inner tank), wait for more than 30 minutes, confirm that the temperature of the inner tank has dropped to room temperature before operation, and open the drain outlet for drainage (the drain outlet is located below the back of the machine).
  - (3) Add descaling agent: After the water in the inner tank is drained, take a bottle of edible white vinegar (or specialized descaling agent), pour it into the machine from the drain outlet, and then close the drain outlet.
  - (4) Heating and descaling: Turn on the machine with water and electricity. After the machine is heated, it can be shut down and left to stand for 2 hours. Then, follow the steps [(1) Steam exhaust] and [(2) Drainage] to close the drain outlet and use it normally.

Attention: In some areas with severe scale, it may take 1-2 times for the sewage operation to remove the scale completely. It is strictly prohibited to tap or use sharp metal tools to clean the inner tank scale during sewage discharge.
3. When cold water flows out of the overflow pipe or does not heat up, it should be stopped immediately. Check whether the inlet solenoid valve and the suction valve are blocked by dirt, and clean or replace them in a timely manner.
4. The waterproof level of this machine is IPX0. When cleaning the outer box, the power should be cut off and wiped with a cloth. Corrosive liquids are not allowed, and it is strictly prohibited to spray or immerse in water for cleaning.
5. If the input power cord of this machine is damaged, it must be replaced. The main switch of the power supply should be fully disconnected, and YZW type or high temperature and oil corrosion resistant flexible cord should be used. It is strictly prohibited to use wires and cables that do not comply with regulations.
6. It is strictly prohibited to clean the heater with hard objects, otherwise it may cause scratches.
7. There are cooling holes on the top of the machine, and no foreign objects should be placed on it. Ensure that there is enough space on top to dissipate heat, so as to prevent the machine from overheating and causing malfunctions, as well as foreign objects thrown into the inner liner, which may cause accidents due to high temperature inside the liner.


## Installation diagram:



Installation instructions:


1. Connect one end of the water supply pipe (4-way pipe) configured by the machine to the water supply valve (faucet), and the other end to the water connection point (4-way pipe) of the machine (inlet device);
2. Plug in the machine power and press the on/off button to use it.

## Usage


1. When using it for the first time, check if it meets the above installation requirements, turn on the water source switch, and check if all internal connectors of the machine are tightened, Ensure no leakage.
2. Plug in the power cord again, and an icon on the display panel indicates that the internal circuit is powered on. Press the  button on the display board to turn it on/off, and the display icon will light up. The machine automatically starts the anti dry burning protection function and the electromagnetic valve automatically enters the water.


### 3. Display board icon display

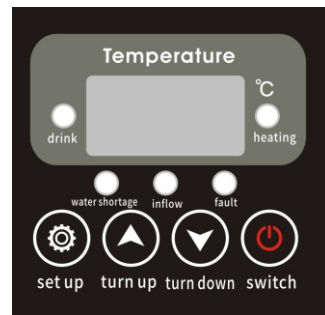
Work Display Guidelines

(1) The heating dynamic icon  indicates that heating is in progress, and the disappearance of the dynamic icon indicates that heating has ended.

(2) The water shortage dynamic icon  indicates a water shortage in the inner tank.

(3) The fault dynamic icons  E1, E3, E4, E5, E6, - indicate that the operation has stopped.

(4) When the drinking icon  lights up, the boiled water is qualified and can be consumed. If there is no icon displayed, the water is not drinkable.



4. The back panel of this machine is equipped with steam gathering cooling and overflow diversion ports. Users should not block the overflow port or place electrical appliances and sockets on the back of this machine to avoid accidents.










## Kind reminder:

1. The monitor displays the normal real-time temperature, which is displayed when the first water inlet or ultra-low water level is reached (water shortage icon ---)
2. When using it for the first time, it is recommended to turn on the faucet for 1-2 cycles of discharge and discharge, and test whether the inlet and outlet are normal. (It is best to heat up the new machine before discharging it before using it again)
3. Temperature: Drinking icon: The temperature should be above 93 degrees Celsius (it will still be heated to 100 degrees Celsius), and the outlet water temperature should be between 93 and 100 degrees Celsius. Ensure the quality of the outlet water and adapt to different occasions. (The national standard drinking water temperature is 92 degrees Celsius)
4. Altitude: The ambient air pressure varies in different regions, and users can contact the distribution agent. By utilizing the high plain setting function provided by the manufacturer, users can make adjustments.

Set according to the altitude of the usage location. Set 99 °C as the benchmark for boiling water at zero altitude, with an altitude of For every 300 meters increase in height, the set boiling water temperature decreases by 1 °C. See the table below:

Altitude (M)	300	600	900	1200	1500	1800	2100	2400	2700
Temperature (C)	98	97	96	95	94	93	92	91	90
Altitude (M)	3000	3300	3600	3900	4200	4500			
Temperature (C)	89	88	87	86	85	84			

## Operating instructions

1. **Power on:** Press the  button lightly to turn on and off the device for interaction.
2. **Time setting:** In the shutdown state, press the  button for 3 seconds to enter the Beijing time hour setting. The hour digital display will flash. Press the  button to adjust the range from 0 to 23. Press the  button to switch the minute setting. The minute digital display will flash. Press the  button to adjust the range from 0 to 59. Then, turn on the device to save the settings.
3. **Timed on/off setting:** Press the  button lightly in the off state to enter the Beijing time setting, and then cycle through the  button Press the next button (timed on) to turn on the red light. First, adjust the hour and press the up and down adjustment button to adjust the required time. Then, press the setting button to adjust the minute. Once adjusted, press the setting button to continue the operation (timed off). Turn on the red light. First, adjust the hour and press the up and down adjustment button to adjust the required time. Then, press the setting button to turn on the minute. Then, press the setting button tightly for 3-5 seconds (timed on/off). The red light indicates that the data settings can be saved, The (timed on/off) setting is complete. (To cancel the timer, unplug the power cord and reinsert it.)
4. **Temperature setting:** Press the  button lightly while turning on the device, and the digital display for hot water temperature will flash. Short press the  button to adjust the temperature (set within the range of

30-100 degrees), set the desired temperature, wait for 5 seconds, and the data settings will be automatically saved.

The factory temperature setting is set to 100 degrees. Stop heating when the temperature reaches the set temperature, and keep heating at 3 degrees Celsius or below the set temperature.

5. Turn on the power again and keep it turned off (there are two flashing dots on the display screen indicating that the power is on).

## Fault diagnosis

Fault codes	Cause of malfunction		Exclusion and resolution
E1	level sensor	1. The inlet valve is not fully open or Water off state. 2. Water level electrode blockage scale	1. Press the panel switch again. 2. Clean or replace the water level probe. 3. Disconnect the power and plug it back in to reset
E3	temperate sensor	Too much scale and circuit failure in temperature sensor	1. Disconnect the power and plug it back in to reset. 2. After using for more than a month, remove scale first 3. Check if the circuit is loose, loose, or oxidized, resulting in poor contact. 4. Replace the temperature sensor.
E4	Inlet valve	1. The inlet valve is not fully open or in a water stop state. 2. There is scale on the filter screen at the inlet of the solenoid valve, 3. If the water pressure is too low and the water level electrode cannot detect water for 30 minutes, it will be protected.	1. Or disconnect the power and plug it back in to reset. 2. Check if the tap water valve is open. 3. Clean the scale on the inlet filter screen of the solenoid valve.
E5	Heat pipe	The startup state lasts for 20 minutes without heating, and the heating tube is burnt out or the relay is aged and disconnected	Replacing the heating tube/power board
E6	Insufficient inlet water pressure	Low water pressure, water inlet for 30 minutes, water level probe, unable to detect water or excessive scale in the water tank	Clean up the scale from the sewage discharge and check if the inlet valve is blocked.
Black screen	1. Temperature controller protection disconnection circuit 2. Loose/oxidized interface and poor contact of the motherboard circuit 3. Voltage instability, main board burnt out		The temperature of the inner container abnormally increases, and the temperature controller protects the power off. After the machine cools down, it can automatically return to power and naturally cool down for about 30 minutes. If this situation occurs again, please contact the after-sales customer. Main board reason: 1. First, check if the display screen is powered on (in standby mode, if there is a dot that stays on, it indicates that there is a problem with the button if the computer cannot be turned on; 2. (Connected or not: The display screen is completely black) After unplugging the power cord, do you hear a beeping sound from the machine? If you hear a beeping sound, the display screen does not light up. It is due to loose wiring or display screen malfunction. 3. (Connected or not: No buzzing sound) Check if the external circuit is powered on. If it is not powered on, it is not a machine problem. Ask an electrician to repair the circuit. If it is confirmed that the socket (plug) is powered on, it is a power board (motherboard) fault.
Spray water from the overflow port	Excessive water pressure, water level exceeding the maximum		1. Adjust the water intake appropriately. 2. Drain excess water from the drinking water faucet
Spill nozzle steam injection	The weather and climate in high-altitude areas have temperature differences, and the boiling water keeps boiling		Adjust the appropriate temperature according to page 4 of the manual, point 4 of the friendly reminder and point 4 of the operating instructions

Thank you very much for purchasing our company's products. The main accessories used in this product are produced by well-known foreign brands, with a 304 food grade stainless steel inner liner. We have independently developed a circuit design microcomputer intelligent control system to make up for the shortcomings of traditional float ball water heaters. We are your ideal helper.

## Product Overview

1.The stepper water dispenser series products are independently developed and produced by our company. The entire machine adopts an intelligent sensing control system, with special water shortage protection and built-in leakage protection. The automatic detection is controlled by the weak current system

2. Thickened and dense insulation layer, with good insulation effect, environmentally friendly, energy-saving, energy-saving, fast secondary heating, and large supply.

3. Electromagnetic valve inlet frequency, inlet volume, and inlet time, precise inlet water, and fast heating.

4.Specially designed bottom uniform velocity water inlet, guiding the direction, flow rate, and flow pressure of the water inlet, allowing the water to hover at the bottom and not mix with the boiled water and push out at the same time.

5. Design specific heating tube positions to form a heat curtain that blocks the mixing of raw and cold water.

6. Ultra low current multiple water level electronic induction design, no water heating, automatic water inlet when low, stop water inlet when high, start safety setting when ultra-high, automatically stop machine operation, cut off heating, and water inlet power.

7. The design of electronic thermal temperature sensing function is efficient, precise, and responsive, ensuring the boiling water temperature. It can control the optimal efficiency of the heater to achieve energy conservation and extend its service life.

8.Users can independently set the maximum temperature for boiling water and the on/off time for specific models. Users can set the optimal temperature for boiling water according to their own needs, geography, climate, and water quality, with no less than three gear settings or any specific model setting

## Parameter

Model	category	Capacity (L)	Net weight (KG)	Size (MM)	Voltage (V)	Power (KW)
LZ-35A/B	-	15	8	190*260*638	110	1.5

The factory preset boiling water temperature is 100 degrees.