

## LCD Electronic Water Boiler

## Install & Operation Manual

H-15 H-30 HR-30 HR-30S HR-40 HR-40S

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- Please read this manual carefully before installation to use this product safely and correctly.
- Please follow the instructions, safety precautions and warnings stated in this manual.
- This manual does not apply to persons who are physically, mentally or intellectually deficient, or who lack experience and knowledge (including children).

#### **User Notice**

Thank you very much for purchasing our products.

For your safe use, the hazards and damages caused by misuse are now described as follows: Please read this manual carefully and use it on the basis of full understanding.

Warning If any misoperation, there is a possibility of death or serious injury.
Note If any misoperation, there is a possibility of personal injury or damage to item.

This mark represents "prohibited" that cannot be done.

This mark represents the "mandatory" that you must perform.



#### Important:



- 1) Before use, please confirm that the installation has been completed and operation in accordance with the "Installation Manual" and "Construction Instructions".
- 2) In order to prevent danger, please read the manual carefully before use and use it on the basis of full understanding. After reading, please keep it at hand. Please follow these instructions and pay attention to the danger signs. The company is not responsible for any damage caused by failure to comply with the instructions and damage caused by installation..



- 1) Please entrust our service center or professional to repair.
- 2) The warranty period of the product is half a year after purchase. The company does not guarantee caused by the installation and water quality. In addition, spare parts need to pay after the warranty period.
- 3)Please use under the following conditions.

1.Water source standard: Drinking water, pH: 6.5-8.5

2.Inlet water pressure: 200kPa~600kPa

3.Inlet water temperature: 0°C~40°C

4. Altitude: Less than 800m

5.Power supply fluctuation: Rating value±10%以下

6. Humidity: 10%~60% (No condensation)

7. Ambient temperature: 0°C~40°C

4) Please select air switch at the power input to ensure safe use of electricity. The rated voltage of the air switch should be greater than or equal to the rated voltage of the line. The rated current of the air switch and the rated current of the overcurrent dropper should be greater than or equal to the calculated load current of the line.

#### Safety Notice





Do not block the drain pipe (overflow pipe).

Water vapor from above the water boiler can affect walls and ceilings.



Confirm the power supply

The voltage must be within 10% of the specified voltage.



Pay attention to water pressure

When water pressure is high (more than 700 kPa), it may affect the normal operation



Prohibition of private transformation

It may cause fire, electric shock or malfunction.



Risk of fire

Please do not let water boiler be close to natural gas and other flammable or explosive materials.



#### Risk of electric shock

Please do not open the backplane to confirm that the ground wire is securely connected. Power connection type: Y type connection

If the power cord is damaged, it must be replaced by the manufacturer or other repair department or similar professional to avoid danger. Anti-shock level: Class I



#### Risk of burns

Please do not touch the hot water tap and the outlet pipe directly.



Do not install outdoors

Do not install outdoors when using indoors.





Water management

There is a possibility of damage to the product caused by health hazards. Please use tap water that meets the water quality standards. Do not put tea leaves, etc.



Work environment

Avoid direct sunlight, no moisture, keep the ambient temperature 0°C-40°C



Inlet water temperature & room temperature are above 0 °C, no freezing If room temperature is lower than 0 °C, the boiler will have frozen phenomenon, please leave it for 24 hours in the condition higher than 0 °C after the power is off.



When not in use for a long time

After draining the water from water tank, keep it dry inside. When reusing it, be sure to clean the water tank and check the electrical components.



Do not use when no water

Re-using will make the water turbid. Please replace the water in water tank.



Prohibition of water intrusion

The water boiler cannot be cleaned with a jet stream. The protection level: IPX3



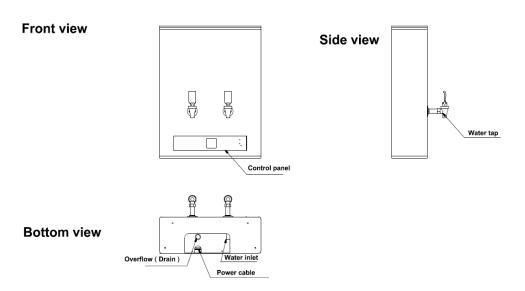
#### Clean the water tank and the heating elements

Please clean the inside of the water boiler regularly. When a film is formed on the electrode in the water tank, it may cause inoperability. Irregular cleaning of the scale by the heating elements will quickly shorten its service life and cause failure of the broken or squib.

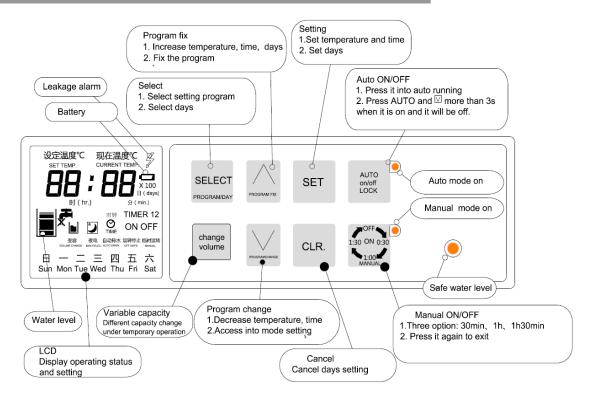
## **Component Overview**

#### **Description**

#### Appearance



### Description for control panel



#### **Features**

- Adopt the world's leading step feeding water technology, water temperature can reach 99 °C, and water production is bigger.
- B LCD display, easy to operate
- Temperature and water level are controlled by a micro-intelligent control system and keep water warmfor long time.
- The water temperature can be set from 40 ° C to 99 ° C.
- After settings, automatic running at work time and automatic stop during holiday, which save energy and extend service life, and greatly reduce lime scale. Manual mode for overtime use.
- Low water level anti-dry & higher temperature safety detection alarm & protection device.
- Anti-leakage safety alarm protection device with leakage protector.
- H Intelligent fault automatic detection and alarm.
- UV steralization to ensure quality of drinking water (some models).
- Automatic discharge water, drain date can be setted (some models).
- Night running, water can be heated and stored in the low peak period of power consumption, (some models)
- Automatic variable capacity, it can change the volume of boiler according to the amount of water consumption, saving energy (some models).

#### Functional Attention

- Not an instant boiler, it takes time to boiled water.
- Water pressure is drop pressure
- Water annot be boiled at the setting of 99°C when it is used at a height of 800m or more, Reference value: altitude 800m-1000m 95°C, 1000m-200m 90°C.
- Do not use pure water or high purity water.
- Ambient temperature and inlet temperature will affect heating time and efficiency.
- The features with "partial models" are specific functions, which can be found in P18.

## First time Using

When you first use it, please follow the steps below to get started. The easiest way to use and the operating steps in the "Running Program" in factory setting. Please refer to the table below for the setting contents. When the program is changed, the display of the LCD panel can be easily performed. When using after changing program, please refer to the various "program settings" below. In addition, please read and understand the operating status of the LCD panel display.

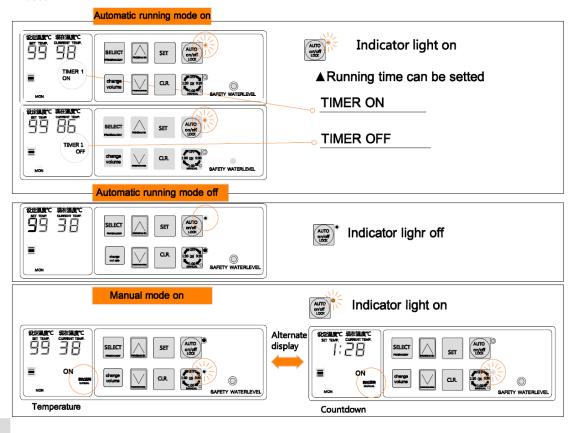
#### **Factory Setting**

		Timer —1	Timer —2	
Water temperature		99℃		
operation hours	Start	0: 00	0: 00	
	Closed	23: 45	23: 45	
Week		SMTWTHFSA	No setting	
Variable capacity setting OFF		OFF		
Eco setting		OFF		
Drain water automatically		No	o setting	

<sup>★</sup> Please follow "program setting" if changing

## Operational status

The operating mode is usually displayed on the LCD panel. According to the display, there are three operating modes.



## First Time Using

#### First time

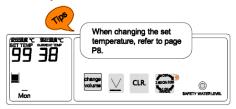
- 1. Open water value
- 2. Connect power:
- ★ The plug is inserted into the socket.
  ★ Switch has been opened.



Be sure to open switch and the plug must be fully inserted into the socket (poor contact, fire may occur). In addition, you may get an electric shock if you touch it with a wet hand.

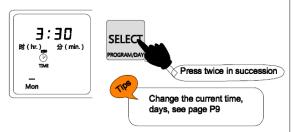
#### 3.Set the temperature

There is a "B" sound, and LCD panel has a display of the current temperature and the set temperature.



#### 4. Current time and days setting

⟨Select⟩



#### 5.Enter automatic running mode

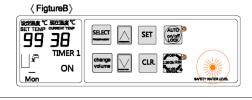


Press once to start



When automatic operation starts, the LCD panel displays <Figure A>, and the buzzer sounds intermittently. This is not a malfunction. In about 2 minutes, the safety water level lamp changes from "flashing" to "lighting", and the LCD panel changes to <FigureB>. The buzzer stops beeping after the safety water level indicator lights up.







💥 Light on

#### Work Principle

In order to maintain a certain temperature of hot water, the temperature of hot water and the amount of water (water level) are controlled by a microcomputer controller and a solenoid valve. Thus, hot water of a suitable temperature can often be supplied. However, when the hot water above the supply capacity is released, hot water is exhausted.

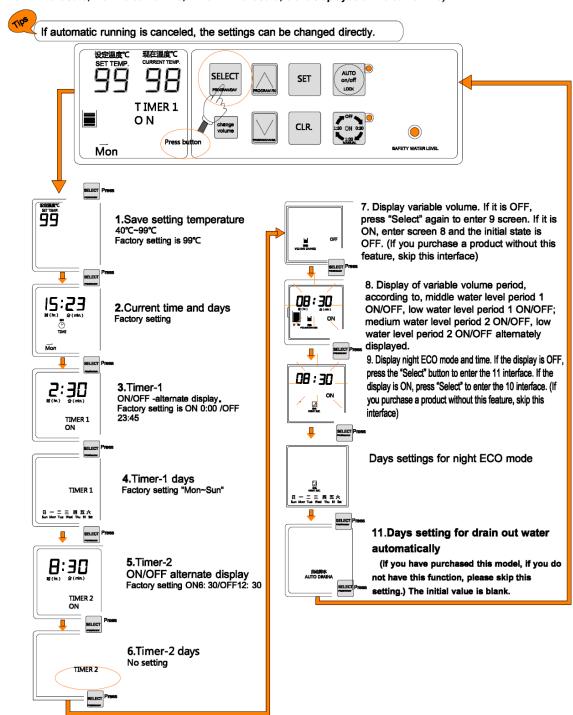
# 1) Full of water 2) Dispense hot water

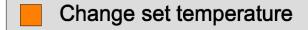
After hot water is used, the water level drops, and before the water level is full, the water is filling while maintaining a suitable temperature.

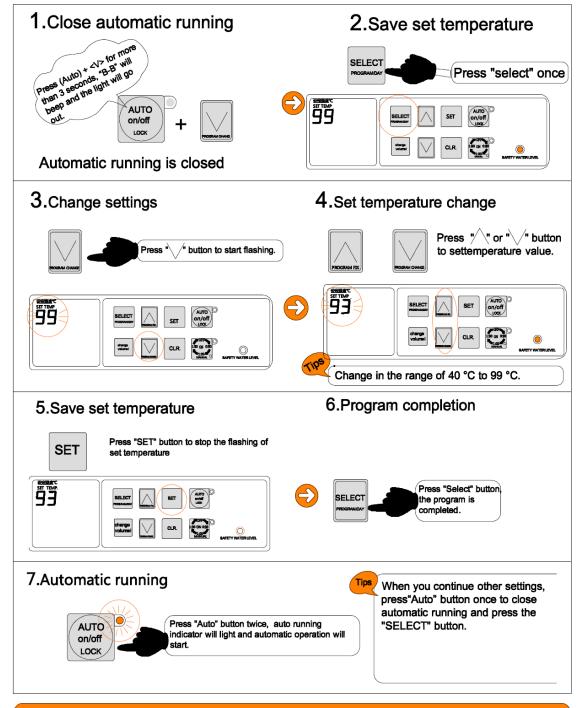
#### Save Current Setting

#### Method

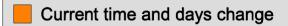
The current setting, whether it is automatic or cancel, can be confirmed by select button. (Automatically running state Timer-1 interface 3, 4 at the same time, Timer-2 interface 5, 6 are displayed at the same time)

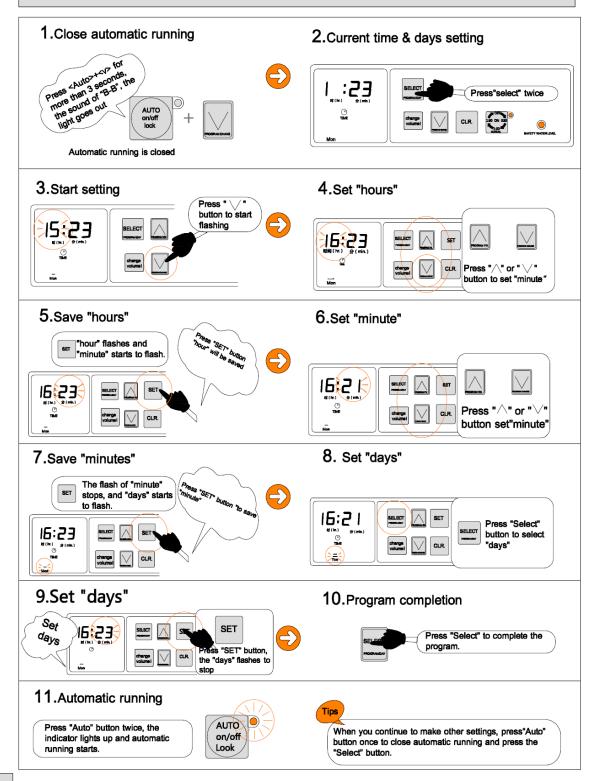






Remarks: The temperature of hot water in tank may not reach set temperature due to the user's water pressure and ambient temperature in different regions, altitude, etc. Set temperature only for reference.



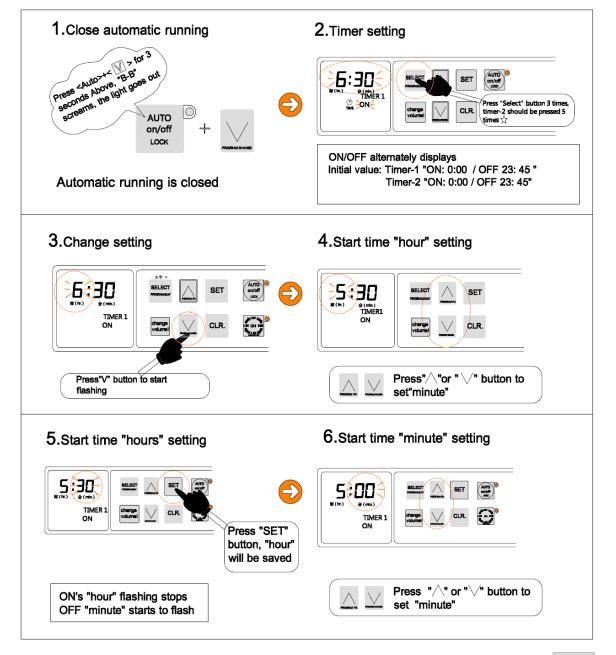


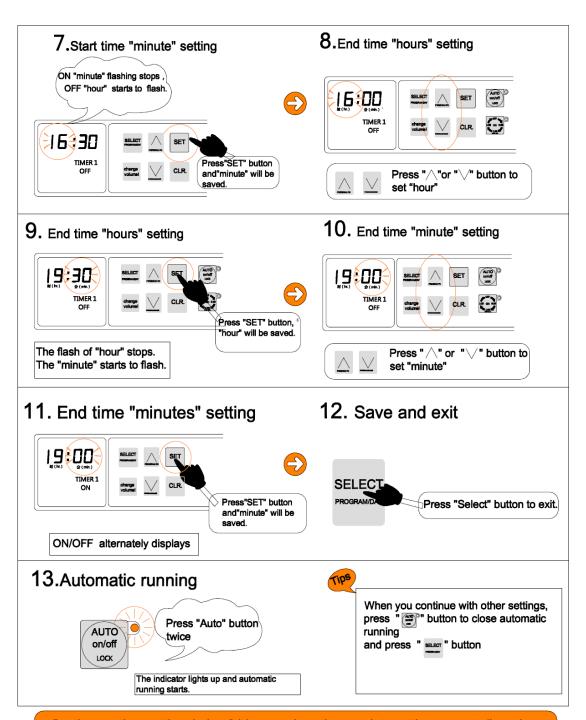


## Timer-1 and Timer-2 changes

Start time and end time of running are between 0:00 and 2:45, and can be changed in units of 15 minutes. The setting of running time is usually performed by timer-1, and the timer-2 is used as a preliminary timer. If you use Timer-2, you can set running time of timer 2. However, the time setting can only be set by days. If repeated, the program specified one time later is valid.

#### Change running time of the timer-1 to 5:00~19:00 as an example.>



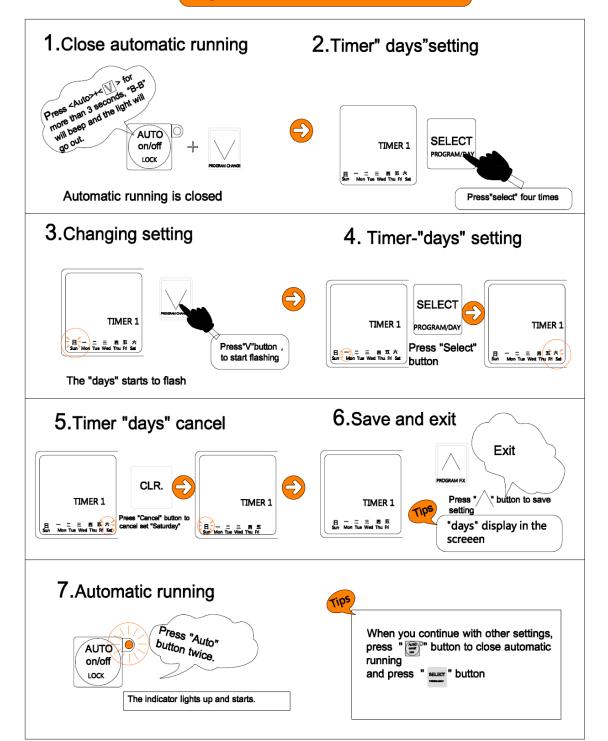


Continuous time setting during 24-hour and continuous date setting are not allowed.

<Time period setting for 24 hours using>
Please set start time of the timer to 0:00 and the end time to 23:45.

Change of timer "days" - 1(change of running time, refer to page P10)

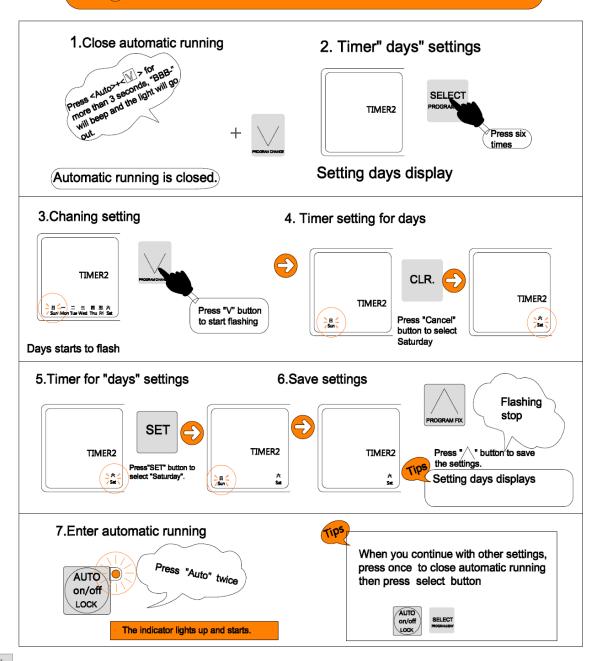
(1) Example of canceling Saturday setting of Timer-1



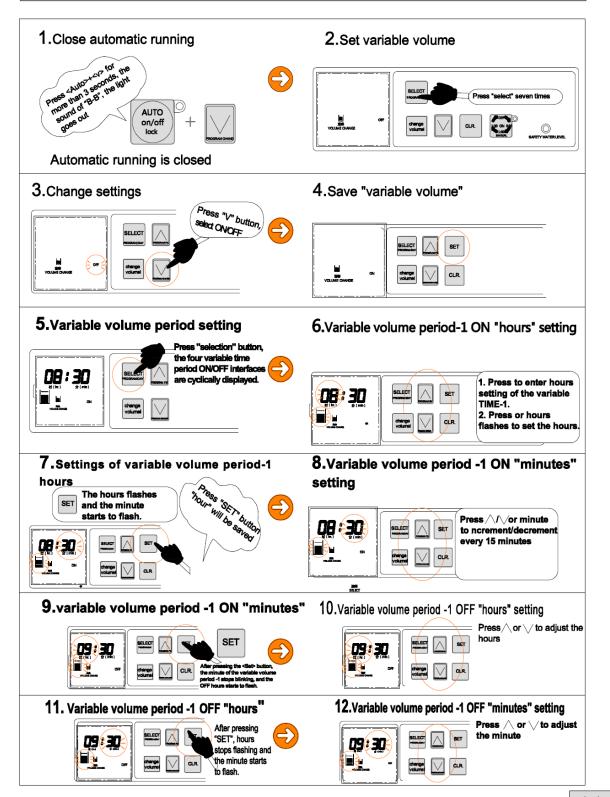
#### Change of timer "week" - 2 <change of operation time, refer to page P10>

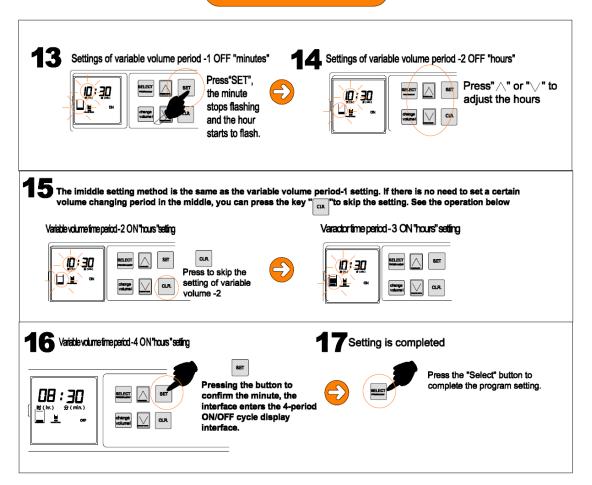
The "days" can be changed on Timer-1 and Timer-2. However, only one operating time can be set in the same day. When the setting is repeated, the last setting procedure for "days" is valid. For example, when Timer-1 is in the "Run Program" at the factory, the running time of Saturday can be set to 6:30 on Timer-2. After 12:30, the running time of Saturday becomes the setting. Set at 6:30" 12:30.

#### < 2 Example of Saturday setting for Timer-2 (TIMER 2)>

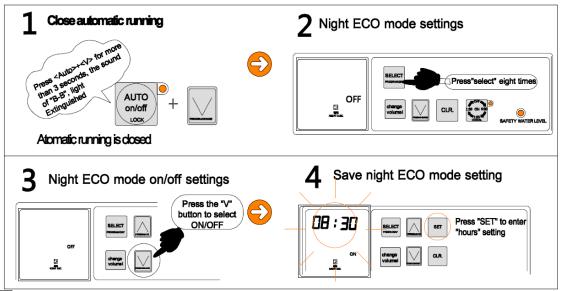


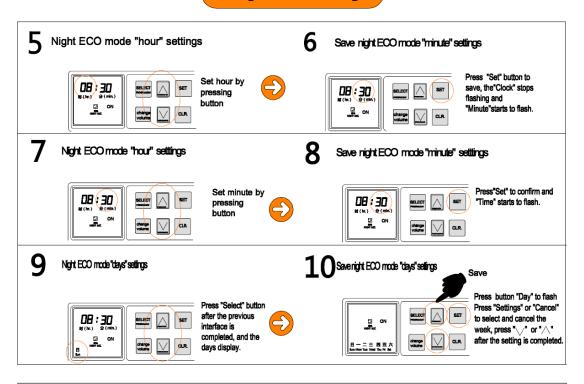




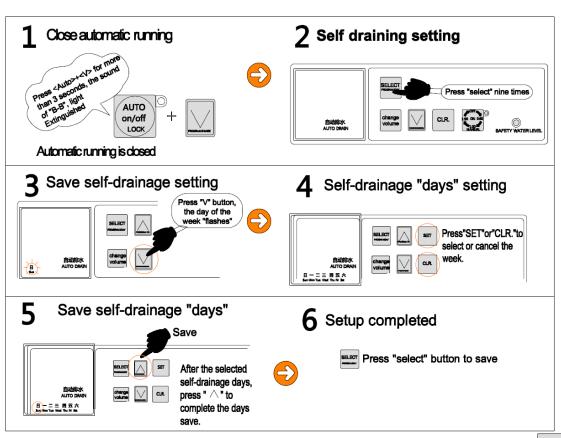


#### ■ Night ECO mode settings(Some models -K1B,K1BG,K1BT )





#### Self-draining setting (customized products for self-draining only)



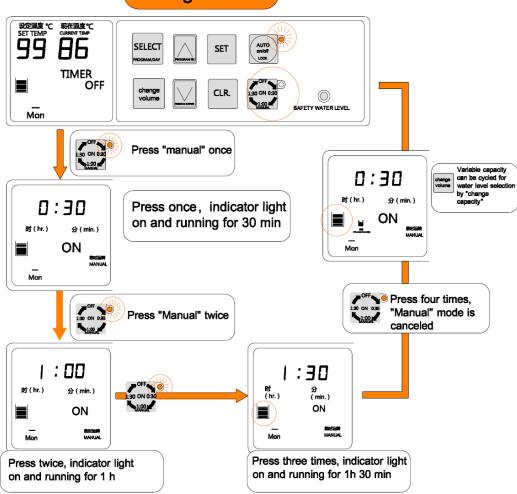
## Manual Mode

## Manual Mode Operation

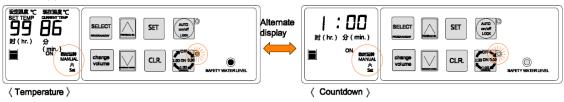
In the case of a vacation or rest day, if you need to work overtime, even if the program is stopped, use the manual Manual mode can only be carried out in 30 minutes, 1 hour, 1 hour and 30 minutes.

For models with the features of variable capacity, you can select the temporary water level by pressing the temporary water level button during manual mode.

#### **Setting method**



✓ Under "manual" mode, temperature and remaining time alternately displays.



Under "manual" mode, if "manual" mode button is pressed, it will be canceled.

## Cleaning & Maintenance

☆ Clean appearance

Wipe gently with a slightly damp cloth. The water boiler cannot be cleaned with a jet of water.

☆ Clean the mesh of inlet pipe joint

Regular cleaning of the filter is necessary to prevent impurities from damaging the solenoid valve.

☆ Clean the interior of water boiler

Please check and descale regularly. Even during the warranty period, it may cause problems due to scale.

☆ Regularly take out the drip tray and clean the dirt and table, such as tea leaves, to avoid clogging the drain.

Regularly check items and standards

Items	Contents	Standard
Check voltage	The detection is used within a range of 10% above and below the specified voltage. Improper voltage can cause system failure.	Once a month
Check current	Check if the test is used within 10% of the specified current. Pay special attention when starting to use and reuse.	Once a month
Insulation measurement	Detect with a 500 volt M $\Omega$ meter to ensure it is above 1 M $\Omega$	Once a month
Water leakage detection	Confirm the product itself and other connected pipes are not leaking.	Once a month
Insulated wires & connections detection	Confirm its normal work and no damaged. There is no looseness in the connection, any losse connection may cause burning.	Once a month
Cleaning inside the water boiler	At least once a quarter, the interior and surface should be cleaned, and the scale on the probes and heating elements should be removed with a nylon bundle.	Once a quarter
Cleaning water filter	When filter is blocked, it can affect performance.	Once in half a year

Note: Pay attention to prevent burns when checking.

Comparison

Hee 5 Reminder ☆ to	To protect the clock, the battery ibuilt-in. owever, after years of use, the battery is knausted. (The battery is usually used for about years)  If the battery runs out, please ask for service replace battery.  After cleaning water tank, use a dry rag to ean water on the lower probe. Or remove the ner cover from the tank and fill the water above
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## Troubleshootings

## Please refer to the following to check before repair.

Question	Checking items	Solutions
Power is connected, but nothing display	Check if switch OFF?     Check if plugg into the socket?     Check if voltage is normal?	If it is OFF, please turn it on.     Please be sure plug into socket
The LCD buzzer sounds after power is turned on, and safety water level indicator flashes.	Check if too much hot water is dispensed at one time? When water is empty and turned on, it will flash.	Close water tap to stop dispensing water and wait minutes until water level indicator become normal.
Water is not hot ( heating slowly )	<ol> <li>Check if use much hot water just now</li> <li>Check if outlet pipe is too long and water become cold</li> </ol>	Stop continue to use water     Make pipe short
No change for emperature ( Water can not be boiled )	Check LCD show OFF     Check if indicator for automatic running and manual mode is off     Just use much hot water?	If it is OFF, running seeting is out of setting time. Please change setting     Press one of the switches.
Water flow become smaller	Check if produce 3-4L water for one minute     Check water source tap is fully opend	3-4L water is normal.     Please open water source tap fully
Vibrating sound occurs in pipe when dispense water	Check if use hose and is fixed	Please fix hose avoid water shock and vibrate
Water leakage	Check overflow pipe     Check connection of the pipes	1.Tighten overflow pipe     2. Tighten connection with clips
Tank deformation	1. Check if overflow pipe (drain pipe) is blocked. 2. Check if overflow tube (drain) is put in water, or pipe length>1.2m, diameter <15mm causes the boiler to absorb vacuum.	1. Overflow pipe (drain pipe) needs to be slanted out and be open to the atmosphere. 2. Overflow pipe (drain pipe) can be put into drip tray or sink. 3. Change the length and diameter of the exhaust pipe to ensure it cannot be inserted into water or blocked.

## **Error Code**

The boiler has various fault diagnosis features. When a malfunction or problem occurs, the buzzer sounds and an error code is displayed on the LCD screen.

When the alarm buzzer sounds continuously, press the automatic switch to stop the alarm buzzer beep.

Error code	Questions	Reasons & solutions	
AL-1	Excessive high temperature (the actual temperature exceeds set temperature)	Relay meltingPlease contact our service center	
	Inlet abnormality	★ Water valve is not fully open     ★ Water source is cut off     The bottom water level electrode is covered with scale    Use a nylon broom to remove scale	
AL-2		<ul> <li>☆ Water tap is open</li> <li>☆ The filter may be blocked</li> <li>Please replace the filter</li> </ul>	
	Excessive use of hot water (Not fault) did not notice the flashing of safety water level indicator and continuously use hot water. (actually hot water has been used up and become cold water).	The safety water level indicator flashes, and when the buzzer starts to beep, it means that hot water has run out. The AL-2 display will appear if you continue to use it. Close the hot water valve or the mixing valve, wait a little (10 minutes to 15 minutes) until a certain amount of hot water is stored to close the alarm.	
AL-3	Abnormal drainage	☆ Drain valve, inlet valve failurePlease contact our service center	
AL-4	Temperature sensor or connector disconnection	Replace the sensor or replace the connectorPlease contact our service center	
AL-5	Temperature sensor short circuit	Replace temperature sensor or the connectorPlease contact our service center	
AL-6	Can not heat	Heating elements or connection wire disconnection, the relay failurePlease contact our service center	
AL-7	Program exception (program data corruption)	Long press auto button for more than 3 seconds, the buzzer will stop beeping and return to factory) setting. If necessary, please re-enter the program and press the auto button to start Please contact our service center when it often occurs	
AL-8	Overflow	Scale on the upper water level sensor Please remove the scale with a nylon bundle or the like. Automatic water inlet valve failurePlease contact our service center	
AL-10	The conditions set by the program are not feasible	The OFF time of the timer is set to be earlier than the ON time.	
AL-12	Leakage alarm	Stop using, replace the leakage parts	

## Service

#### **Service**

The boiler and heating elements are guaranteed for half a year, and PCB and solenoid valve are guaranteed for one year.

After water boiler has passed the service life, please contact the manufacturer or organization to handles the waste.

#### Installation

#### Spare parts

#### Wall mounted

- 1. Secure the bracket plate to the wall with expansion screws.
- 2. Mount the boiler body on the bracket.
- ⚠ Make sure that the wall has sufficient strength to withstand the weight of the water boiler when it is full of water. When the wall strength is insufficient, take appropriate auxiliary measures.
- It is installed at least 30 cm from the ceiling, which is also convenient for maintenance.
- 3. Connect the inlet pipe, overflow pipe, and faucet to the appropriate external piping with gaskets. The overflow pipe must be connected to the drainable pipe without block. It is not allowed to insert the water pipe into the water, and the pipe is >1.2m, and the diameter is <15mm. Because the steam in the water tank cools, the condensate will be drained to prevent it. Produces deformation of the liner caused by vacuum suction.
- 4.Water tap:
- ▲ Side tap installation

Wrap the tap around the seal material and screw it into the side outlet connection pipe.

▲ Bottom water outlet pipe process

Connect one end of the connecting pipe to the water outlet connector of the water heater, and the other end to the user's own water tap on the washing table.

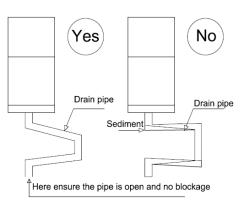
5.Pipe specifications:

Inlet pipe G1/2, Outlet pipe (tap) G1/2 Overflow pipe G3/4

#### **Important**

- Make sure all pipes are removed from the boiler when they are connected and install value to control water inlet.
- 2. Drainage pipe

The general drain pipe is laid as shown on the right. The horizontal pipe laying part should be placed in the downslope so that the water vapor generated in the water tank will exclude the water that is not generated from accumulating inside. If water accumulates inside, it will cause the drain to block and prevent normal operation. In order to discharge water vapor, be sure to install a slanted pipe. At the same time, never install a valve on the drain.



#### **Technical Information**

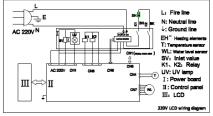
#### Specification

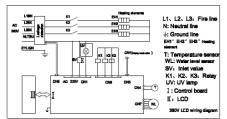
Model.NO.	HR-30 HR-30S	HR-40 HR-40S	H-15 H-30
Rated Power	3kW	3kW/6kW	3kW
Water Pressure	0.2Mpa-0.6Mpa	0.2Mpa-0.6Mpa	0.2Mpa-0.6Mpa
Rated Voltage	AC220V	AC220V/380V	AC220V
Rated Frequency	50Hz	50Hz	50Hz
Capacity	30L	40L	15L/30L
Dimension	540*190*570	540*190*703	360*250*485/720
Control System	Step feeding water	Step feeding water	Step feeding water

Standard: Q/0214 JSS002-2015

Certificate No.:

#### Circuit Diagram





The input voltage is a three-phase 380V water heater, which uses three-phase five-wire power distribution. (5×2.5mm2)

For safe use, please connect the external source in strict accordance with the circuit diagram, ie brown, black, black, fire line (set of red heat shrinkable tube); light blue is zero line (set of black heat shrinkable tube); yellow / green The two-color line is the ground line. The external power supply line is ≥2.5mm2, and the phase current is ≥16A.

## Service

#### Appendix

Faults: Solution: Date: Company: Signature:	For users	Faults: Solution: Date: Company: Signature: User: Signature:	Model : Product Code : Purchase Date : Service Date : No. of Service :	Payment voucher
		Please cut this table and	paste it on the record for payn	nent
Faults : Solution : Date : Company : Signature :	For users	Faults : Solution : Date : Company : Signature : User : Signature :	Model: Product Code: Purchase Date: Service Date: No. of Service:	Payment voucher
		Please cut this table and	paste it on the record for payn	nent
Faults : Solution : Date : Company : Signature :	For users	Faults: Solution: Date: Company: Signature: User: Signature:	Model : Product Code : Purchase Date : Service Date : No. of Service :	Payment voucher
		Please cut this table and	paste it on the record for payn	nent

#### Packing list

No.	Description	QTY
1	Water Tap	
2	Stainless steel pipe	
3	Wall Bracket	
4	Manual	
5	Cetificate	
6	Warranty Certificate	
Operator :		

#### Certificate:





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