



Please carefully read this operation manual before using the water heater and pay a special attention to the parts marked with “ATTENTION”

DEAR BUYER,

Congratulations on buying your Thermex instantaneous water heater. We are sure that a wide range of our electric water heaters will satisfy any needs. Usage of modern technologies and high-quality materials is a foundation of popularity and trust in Thermex trademark.

Thermex electric water heaters were developed and manufactured in full compliance with the national and international standards guaranteeing safety and security of their operation.

This manual is for Thermex instantaneous electric water heaters of **Rio 3000**. The full name of the appliance is indicated in the ID plate on the body of the appliance, as well as on the box sticker.

1. USE

Thermex instantaneous electric water heater is designed for providing hot water to municipal facilities having water mains of the required parameters. The IEWH is to be used in closed heated premises.

2. MAIN TECHNICAL DATA

The IEWH degree of protection against intrusion of particulate matters and dust is IP24.

The ambient temperature for the IEWH operation should lie within the range from +3 C° to +40 C°, the atmospheric humidity should be up to 80% or may rise to 98% for a short period (while the ambient temperature does not exceed 25 C°). Water freezing in the IEWH at a negative temperature will lead to its failure which is not covered by the warranty.

Table 1

Model	Rio 3000
Item no.	211 086
Voltage	230 V ~
Frequency	50 Hz
Power	3000 W
Automatic circuit breaker	16 A
Recommended parameters of a residual cut-off device	10 mA
Output ($\Delta t=25^{\circ}\text{C}$)	1.7 l/min
Output ($\Delta t=35^{\circ}\text{C}$)	1.2 l/min
Dimensions of the appliance	200 x 225 x 165 mm
Weight	0.75 kg
Dimensions of the box	260 x 120 x 315 mm
Recommended cable cross-section	1.5 mm ²
Working pressure	0.04 MPa
Rated pressure	0.6 MPa
Ingress protection class	IP24
Electric protection class	I
Water connection	G 1/2

3. PACKAGE CONTENTS

Water heater	- 1 pc
Operation manual	- 1 pc
Packaging	- 1 pc
Mounting kit	- 1 pc

4. PRINCIPLE OF OPERATION

The water in the IEWH heats up instantly, passing through a stainless steel heating flask in which the heating element is located. The required temperature is achieved by adjusting the water flow using the handle of the device (by reducing/ increasing the "pressure" of water at the input of the IEWH). The temperature of tap water can vary significantly throughout the year: from 5 °C in winter to 20 ° C in summer. Therefore, at the same water temperature at the outlet of the HDPE, the water flow in winter can be significantly less than in summer.

To protect against overheating, a thermal switch is provided in the IEWH, which disconnects it from the mains in the event of such a situation. The thermal switch does not serve to protect the IEWH from failure due to high water pressure resulting from improper connection and operation of the IEWH.

The IEWH is equipped with a ceramic cartridge with an extended service life.

The device has an information display that displays the temperature of the water at the outlet of the water heater.

5. SAFETY MEASURES



You should pay the attention of children that they must not play with the IEWH. The IEWH is not to be used by persons (including children) having limited physical capacities, tactual disorders or mental disabilities, as well as by persons who do not know how to use an IEWH, except for the cases when they are observed or instructed by the people responsible for the IEWH safety.

Electric wire, safety devices, and switchgears should comply with the power capacity of the appliance to be connected. Connect the appliance only to the electrical network having the parameters set in the identification plate on the appliance body.

Before installing, check the electrical network and make sure that it has a ground loop. It is prohibited to use the IEWH if there is no ground loop.

It is mandatory to install additional filters when the IEWH is used in outdated water supply systems that have a large quantity of suspended particulate matter and impurities in the flowing water.

IT IS PROHIBITED:

- Install the IEWH except strictly vertically on the sink;
- Independently make changes to the design of the device;
- Install any shut-off valves, valves at the outlet of the water from the IEWH, or attach additional faucets, shower watering cans, dividers to the outflow of the IEWH;
- Leave a working IEWH unattended;
- Turn on the IEWH without installing it on the sink and filling it with water;
- Use contaminated water with sand, rust or silt (to pre-purify the water at the input of the IEWH, it is necessary to use filters with a degree of purification of at least 200 microns);
- Turn on the IEWH with a damaged network cable;
- Turn on the tank when the water freezes in it or use it at an ambient temperature below 0 ° C;
- Use the appliance in uncovered and unheated rooms;



The electrical safety of the water heater is guaranteed only if there is an efficient ground connection made in accordance with the current regulations for electrical appliances installations.

The appliance must be installed with a residual cut-off device.

Electric wires, safety devices, and switchgears should withstand the current load complying with the power capacity of the appliance.

6. INSTALLATION AND CONNECTION

The equipment must be installed only by qualified specialists.

The IEWH must be connected to the water supply system only with copper pipes, metal-reinforced plastic pipes or plastic pipes and with a special flexible plumbing hose. It is forbidden to use flexible plumbing hoses which were already in use. It is forbidden to feed the water into the IEWH through a Y-strainer (not included in the IEWH package set) installed onto the cold water mains.

Thermex Rio 3000 may be installed whether with the branch pipes upwards or with the branch pipes downwards.

It is recommended to follow this installation sequence:

1. Install the water heater on the sink.
2. Connect it to the water line.
3. Connect it to the electrical network.

Installation is possible in two ways: the output of the power cable above the sink and the output of the power cable under the sink.

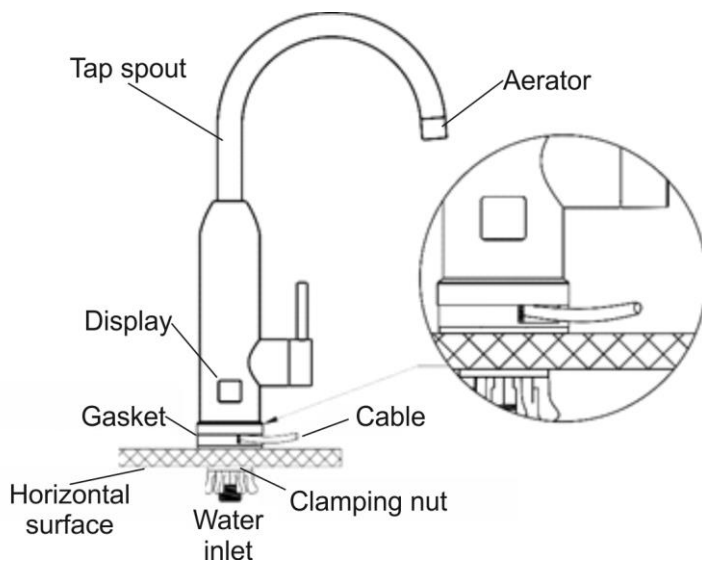


Fig. 1. Installation with the output of the power cable above the sink

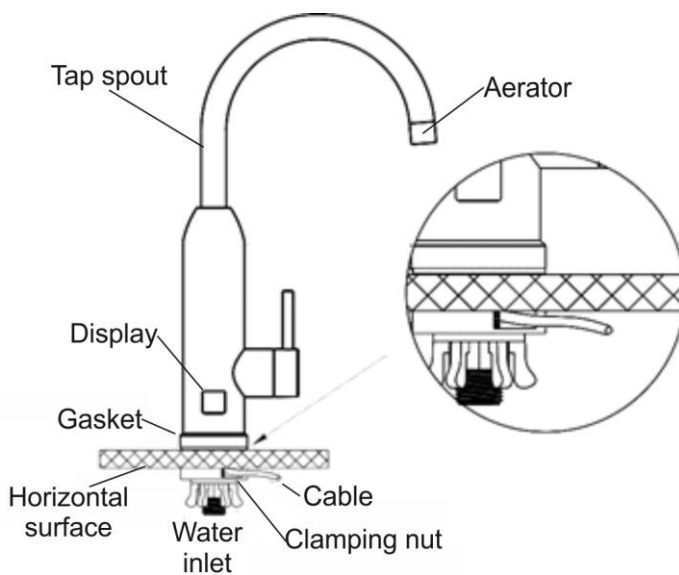


Fig. 2. Installation with the output of the power cable under the sink

1. Remove the appliance body, spout and shower kit from the box. Attach the spout to the adapter mounted on the mixer housing by pulling the spout nut.
2. Install the IEWH on the sink in accordance with the selected installation option, following the scheme from Figure 1 or Figure 2.
3. Pre-cut off the cold water supply in the water supply system.
4. Connect the cold water inlet pipe of the IEWH to the cold water supply pipe using a flexible plumbing (not included in the package).
5. After connecting, supply water to the IEWH, wait for water to flow out of the spout, stop the water supply. Check the density of all connections.
6. Before connecting to the power supply, de-energize the network to which the device is connected. It's recommended to use RCD or ELCB with grounding (need to buy separately and not in scope of supply) for this device. RCD or ELCB need to be integrated into device cable.
7. Connect the RCD or ELCB to the IEWH cable. To do this, remove the cover of the RCD or ELCB. Next, connect the IEWH supply cable to the RCD terminal block according to the scheme: L (brown) – "phase"; N (blue) – "zero"; E or (yellow/green) – "grounding".
8. Turn on the IEWH to the network.



It is necessary to supply cold water to the IEWH using a water pretreatment filter with a degree of purification of at least 200 microns.



It is forbidden to install any shut-off valves, valves at the outlet of the water from the IEWH, or to attach additional mixers, shower watering cans, dividers to the outflow of the IEWH.

7. OPERATION

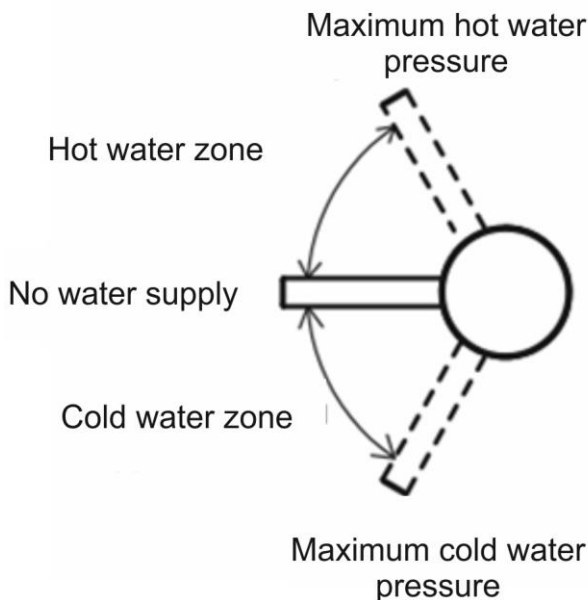


Fig. 3 Regulation of the maximum water flow.

3 positions are marked on the handle of the device: cold water, hot water and shutdown.

The handle in the Stop position (in the middle) means that the device is turned off, there is no water supply.

To get hot water, turn the handle up and wait for the water to pour out of the spout. Adjust the water flow using the handle of the device. Wait for 10-15 seconds until the water temperature at the outlet of the IEWH stabilizes. If the water is too cold, reduce the water supply. If the water is too hot, the water supply must be increased.

The digital display will show the outlet water temperature. Please note that the temperature measurement takes place inside the device body, and passing through the device and the spout, the water cools down, which can lead to a difference between the temperature displayed on the display and the actual temperature.

To get cold water, turn the handle down and wait for the water to pour out of the spout. Adjust the water flow using the handle of the device.

If necessary, switch the water supply to the shower watering can using the switch.

After the end of using the water heater, turn the handle of the device to the Stop position.

If the water in the water heater overheats, the thermal switch will stop supplying electricity to the heating element.

Water heats up momentarily in the IEWH by passing through a thermoresistant

plastic flask which houses heating elements. The water pipeline temperature may vary considerably within a year: from 5°C in winter to 20°C in summer. That is why the water flow at the outlet of the IEWH in winter may be significantly less than in summer while the temperature remains consistent.



If you are not planning to use the IEWH for a long time, it should be disconnected from the electrical network.

If you do not use the IEWH in winter and there is a risk of the water pipeline freezing or IEWH freezing, it is recommended to de-energize the heater and discharge the water from it.

8. MAINTENANCE AND SERVICING

The IEWH does not require any servicing by the user. Any repairs should mandatorily be done by a licensed company.

In case of any failures, do not try to fix the appliance on your own. Please address the nearest authorized service centre.

The body of the IEWH can be wiped with a slightly wet cloth. It is forbidden to use any abrasive materials or aggressive chemicals. Clean the spraying nozzles of the shower head and the faucet of contaminants regularly.

Check and clean regularly the filter located in the inlet cold water branch pipe of the IEWH. The filter is accessed by disconnecting the IEWH from the cold water supply pipe. Make sure that you disconnect the appliance from power supply and water supply.

Do not use the water from the IEWH for drinking.

9. TROUBLESHOOTING

Malfunction	Remedy
The device does not heat the water	-Check the power connection -Make sure that water flows freely through the appliance -Make sure that the RCD or ELCB (need to buy separately and not in scope of supply) did not work. - Make sure that the filter located in the cold water inlet pipe of the IEWH, as well as the spout aerator, are not clogged. If necessary, clean them.
The device is leaking	- Check the tightness of the connections of the water heater with the cold water pipe, if necessary, install seals at the connection point.
The outlet water temperature is too hot, or the outlet water volume is too low	- Check if the water pressure is too low, increase the water flow if necessary - Make sure that the filter located in the cold water inlet pipe of the IEWH as well as the spout aerator, are not clogged. If necessary, clean them.
The safety valve has tripped	- Disconnect the appliance from the mains and stop the water supply - Insert the rubber plug of the safety valve (Fig. 1) into the starting position - Supply water to the IEWH, wait for the water to pour out of the spout, stop the water supply. Check the density of all connections - Connect the device to the power supply.

10. TRANSPORTATION AND STORAGE OF ELECTRIC WATER HEATERS

Electric water heaters should be transported and stored in accordance with the handling symbols on the package:



– protect the cargo from moisture



– fragile, caution



– recommended temperature limits for storage: from +5°C to +20°C



– this way up – correct vertical storage of the cargo

11. DISPOSAL

The manufacturer sets 5 years as the service life for the IEWH subject to following the rules of installation, operation, maintenance and compliance of the water quality with the standards in use.

The IEWH should be disposed in accordance with the local environmental laws and recommendations.

The manufacturer reserves the right to implement modifications to the list of components, design, and properties of the water heater that do not deteriorate the operational characteristics of the equipment without a special notification.

12. MANUFACTURER'S GUARANTEE

The manufacturer sets 2 years as the warranty period for the IEWH.

The warranty period starts from the date of the IEWH purchase. If there is no shop stamp certifying the purchase date or if it was corrected, the warranty period is considered to start on the water heater manufacture date indicated in the identification plate on the appliance body. The manufacture date is encoded in a unique serial number in the identification plate (sticker) located on the upper part of the appliance body. The serial number of the appliance consists of thirteen digits. The third and fourth digits represent the year of manufacture, the fifth and the sixth digits are the month of manufacture, the seventh and the eighth digits show the day of manufacture. During the warranty period, complaints are accepted provided that this Manual with the stamp of the sales company and the identification plate on the body of the IEWH are in place.

The warranty covers only the water heaters used for the purposes not related to commercial activities. The responsibility for following the installation and connection rules lies with the buyer (if (s)he implements the connection on his/her own) or with the service company implementing the connection

When installing and using the IEWH, the consumer shall be obliged to observe the requirements ensuring fail-safe operation of the appliance within the warranty period:

- to follow the safety measures and rules of installation, connection, and servicing stipulated in this Manual;
- to exclude any mechanical damages caused by negligent storage, transportation or mounting;
- to exclude the IEWH freezing;
- to use for connection of the IEWH the cable with the cross section of not less than the minimum recommended cross section advised by the manufacturer (stipulated in the sticker on the package and in this Manual).

The manufacturer does not bear responsibility for any defects resulting from violation of the rules of installation, operation and maintenance of the IEWH stipulated in the Manual supplied with the appliance, including in cases when these defects appeared due to inappropriate parameters of the networks (electrical and water supply networks) where the IEWH operated, or if they were caused by third party intervention. The manufacturer's warranty does not cover complaints for the IEWH appearance. Any repairs, replacement of components or parts of the equipment during the warranty period shall not prolong the warranty period for the IEWH in general. Installation, electric connection, and first use of the IEWH should be carried out by a qualified technician.

13. INFORMATION ABOUT THE MANUFACTURER AND CERTIFICATION

Manufacturer:

YUYAO HEMAY ELECTRICAL APPLIANCES CO.,LTD.
No.319 Ru Lin Road, Langxia Street, Yuyao, Zhejiang

All models have been certified and comply with requirements of European Directives:
2014/35/EU, 2014/30/EU and 2011/65/EU (RoHS).



14. NOTE OF SALE

Model _____ Serial no. _____

Date of sale _____ 20 _____

Selling company: _____

Signature of the selling company representative _____

Selling company
stamp

The appliance is complete, I have no complaints about its appearance. I have received the Operation Manual with all required notes. I have acknowledged and accepted the rules of usage and conditions of the warranty.

Signature of the buyer: _____