



**Before the first using your electric storage water heater, carefully read this operation manual and pay special attention to paragraphs marked with «Attention» symbol.**

Dear customer! Congratulations on your purchase of THERMEX electric water heater. We are convinced that a wide range of our electric water heaters will satisfy any of your needs. Use of modern technologies and the highest quality materials when manufacturing devices have contributed to gaining popularity and trust to THERMEX trade mark.

THERMEX electric water heaters are designed and manufactured in strict accordance with domestic and international standards guaranteeing reliability and safety of operation.

Present operation manual applies to THERMEX models series IBL, volume 10, 15 liters. In all models Silver Heat heating element can optionally be installed. The full name of your heater model of is specified in section "Manufacturer's Guarantee" (sub-section "Note of sale") and in the identification plate on the casing of the heater.

## 1. Application

Water heater (hereinafter EWH) is designed to provide with hot water for welfare and industrial facilities that have cold water supply main with appropriate characteristics.

EWH shall be operated in closed heated spaces and is not designed for continuous flowing mode.

## 2. Main technical characteristics

- Maximum cold water main pressure – **0.7 MPa**
- Minimum cold water main pressure – **0.05 MPa**
- Parameters of the power supply - single-phase network with voltage (220 V ± 10%) and +1% 50 Hz + 1%
- Power of tube heater is adjustable in steps:
  - 1.5 kW - save heating mode**
  - 2.5 kW - full heating mode (TURBO mode)**
- Thread diameter of hot and cold water connecting pipes - 1/2"
- Heater protection class - **IPX4**

Model	Volume (l)	Average heating time T <sub>450C</sub> , (.5 kW)	Permanent subsistence loss (kWh/24 h)	Actual annual energy consumption * (*Permanent subsistence loss) (kW/h)
IBL 100, 10U	10	16 min.	0,56	204,4
IBL 150, 15U	15	28 min.	0,69	251,8

## 3. Scope of supply

1. Water heater .....1 pc.
2. Pressure relief valve GP type ..... 1 pc.
3. Operation manual .....1 pc.
4. Packaging .....1 pc.
5. Anchors for fastening.....2 PCs. for each clamping bar

## 4. Description and principle of operation

EWH consists of the housing, removable flange, safety valve, protective cover and Control Panel.

**4.1.** The housing consists of the outer shell, made of plastic, internal tank, thermal insulated with environmentally friendly polyurethane foam, and two threaded pipes for cold water inlet (blue ring) and hot water exhaust (red ring).

Internal tank is made of stainless austenitic stainless steel, which ensures high corrosion resistance and, as a consequence, long operation life.

**4.2.** At the removable flange the following is mounted: tubular heater (HEATER), pipe thermostat.

TEH is used to heat water and thermostat provides with possibility to adjust temperature up to +74° C ( $\pm 5^\circ$  C). Temperature adjustment is made using adjustment knob located on the water heater control panel (Fig. 1).

The thermal switch is used to prevent overheating and cut off EWH power when water temperature exceeds +95° C ( $\pm 5^\circ$  c) (fig. 2). EWH housing can heat in the course of operation.

Two warning lights (button) located on the control panel (fig. 1) of the water heater next to the temperature adjustment knob indicate operating mode: "POWER" light is on when the save mode (1.5 kW), and TURBO light - when the full heating mode (2.5 kW). Switching between the modes is made by pressing TURBO button, when button pressed "TURBO" mode is on, when released – save mode. EWH power on/off is carried out by POWER button.

**4.3.** Safety valve is back-flow valve preventing ingress of water from the water heater to water main in case of pressure drop in the latter and in case of pressure increase in the tank when water is heating up, as well as safety valve, relieving excess pressure in tank when water is heating up. During water heater operation water may leak out of the exhaust outlet pipe of the safety valve to relieve excessive pressure, which is made for the purpose of water heater safety. This outlet pipe shall remain open to the atmosphere and be installed constantly down. and in a non-freezing environment. You shall ensure drainage of water from exhaust pipe safety valve into the drain, with installation of the corresponding EWH drainage.

It is required regularly (at least once a month) to discharge a small amount of water through the exhaust pipe of the safety valve into the drain to remove lime deposits and to test the operating functionality of the valve. Handle is intended to open the valve. It is necessary to control when operating water heater this handle to be in position closing water draining from the tank.

## 5. Specifying security measures

**5.1.** Electrical safety and corrosion protection of EWH are guaranteed only if there is an effective earthing in accordance with applicable electric installation rules and regulations.

**5.2.** Plumbing pipes and fittings shall conform to parameters of water main and have the required certificates of quality.

**5.3.** When installing and operating EWH the following is not allowed.

- To power EWH if EWH is not filled with water.
- To remove the protective cover when the power is on.
- Use EWH without grounding or use water pipes as grounding.
- To connect EWH to water main with pressure exceeding 0.7 MPa.
- To connect EWH to the water supply without safety valve.
- To drain water from EWH with power switched on.
- To use spare parts not recommended by the manufacturer.
- To use water from the EWH for cooking.
- To use water containing impurities (sand, small stones), which might lead to EWH and safety valve breakdown.
- To modify design and installation dimensions of EWH brackets.
- Ambient temperature, where EWH is operated, shall be within the range from 3° c to 40° C. Water freezing in EWH at negative temperatures cause its malfunction, which is not a guarantee case.

Attention should be paid to children so that they do not play with EWH. EWH is not intended for use by persons (including children) with limited physical, sensory or mental capabilities, or by persons who do not know how to use the EWH, except for cases when this happens under the supervision or instructions by persons responsible for safety of the EWH.

## 6. Installation and connection



**All installation, plumbing and electrical works must be performed by qualified personnel.**

### 6.1. Arrangement and installation

EWH installation shall be performed in accordance with marking on the housing and the following table:

Model	Volume (l)	Arrangement
IBL-O	10, 15	Pipes down
IBL-U	10, 15	Pipes up

It is recommended to install EWH as close as possible to the place of hot water using to reduce heat loss in the pipes.

When drilling (making) holes in the wall, you should consider cables, ducts and pipes in the wall. When choosing EWH installation place take into account total weight of EWH filled with water. Wall and floor with low carrying capacity shall be reinforced accordingly.

EWH is suspended with housing bracket on the anchor fixed into the wall. Hooks mounting on the wall shall exclude spontaneous moving of EWH brackets.

To perform maintenance and servicing of EWH the distance from the protective cover to the nearest surface in the direction of removable flange axis shall be at least 0.5 m.

In order to avoid damage of the user's and/or third parties' property in the event of a faulty hot water system, it is required to install EWH in spaces with waterproofing and drainage to the sewers, and in no case to place under items exposed to the water under EWH. When placed in unprotected areas a protective plate (not supplied) with drainage into sewers shall be installed under the EWH.

In case of EWH arrangement in hard-to-reach places EVN in order to perform maintenance and warranty service (mezzanine floors, niches, ceiling voids, etc.), installation and dismantling of EWH is carried out by the user on his own or for his own account.

## 6.2. Connection to water mains

Cold water shall be supplied to EWH using pre-filter with water treatment level not less than 200  $\mu\text{m}$ .



Install pressure relief valve at the cold water inlet marked with the blue ring, with 3.5-4 revolution, ensuring junction tightness with any water sealing material (flax, FUM tape, etc.).

During water heater operation water may leak out of the exhaust outlet pipe of the safety valve (relief of excessive pressure when heated). It is recommended to connect to the exhaust outlet pipe rubber or silicone tubing of appropriate diameter to drain moisture.

Connection to water main system shall be in accordance with Figure 2 (option 1 for IBL-O models and option 2 for models IBL-U) using copper, multilayer or plastic pipes, as well as special flexible plumbing feed pipes. When mounting EWH excessive efforts are not allowed to avoid damage to the pipe.

**Do not use used flexible feed pipes. Do not operate the EWH without safety valve or with valve made by other manufacturers.**



After having connected EWH open the EWH cold water tap, hot water outlet tap and hot water mixer faucet to allow outflow of air from EWH. When complete filling EWH water will constantly flow from tap faucet. Close the hot water tap on faucet mixer.

When connecting EWH in places not provided with water mains it is allowed to supply water to EWH from auxiliary tank using pumping station, or from the tank placed at a height of not less than 5 meters from the top of EWH.

If pressure in water pipeline exceeds 0.7 MPa, it is required to install pressure reducing valve to reduce cold water pressure to normal.

## 6.3. Connection to power supply

**Before connecting water heater to power supply make sure that it is filled with water!**

Before connecting water heater to power supply, make sure that its characteristics conform to those specified for the heater.

Water heater shall be earthed to ensure its safe operation.

Water heater is equipped with a standard power cord with plug.

Power outlet should have grounding contact with earthing wire and be in a place protected from moisture, or meet requirements for moisture and splashproofness. Plug it and press "POWER" button to turn on the EWH.

## 7. Operation and maintenance

**7.1.** In the course of EWH operation user can adjust water heating temperature using temperature adjustment knob located on the control panel (fig. 1). To set the desired temperature, press in on the adjustment knob thus putting it out of EWH housing, set the desired temperature and down the knob with one more pressing in order to avoid accidental changes in temperature.

When water temperature exceeds the value of the +95° C temperature switch is actuated shutting down the EWH.

### 7.2. Maintenance

When performing maintenance scale presence on TEH is checked. At the same time residue that may accumulate in the bottom of the EWH is removed. If there is scale on TEH, then it can be removed by using scale removing means or mechanically.

It is recommended to perform the first maintenance in a year from the date of EWH connection by experts of specialized organization and on the basis of intensity of scale and residue to determine dates for follow-up maintenances. This action will maximally extend the lifespan of EWH.

**ATTENTION! Accumulation of scale on TEH may cause damage.**

**NOTE: damage to TEH due to scale formation is not subject to warranty obligations. Regular maintenance is not included in the basic warranty obligations of the manufacturer and the seller.**

**To perform maintenance follow the steps:**

Turn off EWH power.

- Cool hot water or discharge it through the mixer.
- Cut off supply of cold water into EWH.
- Unscrew the relief valve.
- Put the rubber hose on the cold water supply inlet pipe and direct the second end to the drain.
- Open the hot water faucet on the mixer and drain water from the EWH through cold water supply inlet pipe.
- Remove the protective cover, disconnect wires, unscrew and remove from the casing the removable flange.
- Clean the TEH if necessary from scale and remove residue..
- Assemble, fill EWH with water and power on.
- When conducting EWH maintenance by forces of specialized organization relevant note shall be made in the warranty and service book.

Fig. 1 Control board

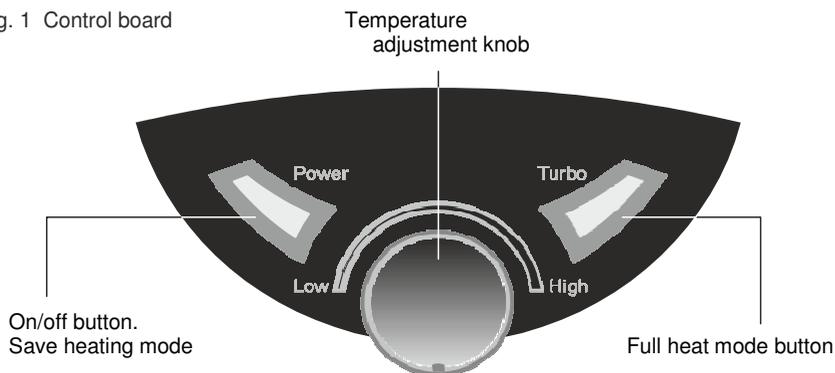
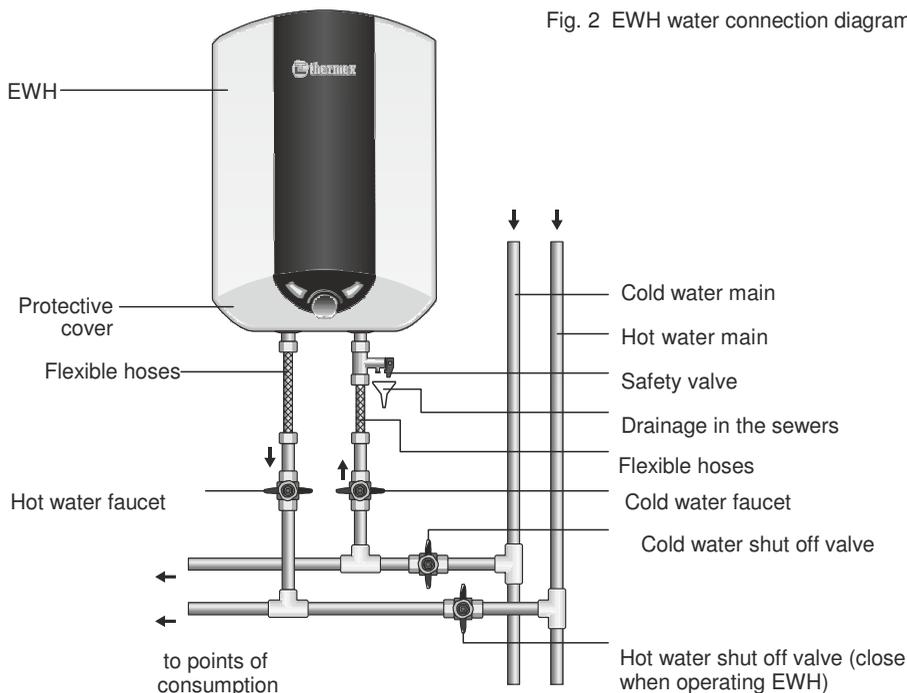


Fig. 2 EWH water connection diagram



### 7.3. Possible faults and remedies.

Malfunction	Possible cause	How to fix
Hot water pressure from EWH decreased. Cold water pressure keeps at the level.	Clogged inlet safety valve	Remove the valve and clean it in water
Heating time increased	THE is covered with a layer of sludge	Remove the flange and clean the TEH
	Supply voltage decreased	Contact power main operation service
Powered EWH does not heat water. No backlights of indicator lamps	Thermal switch tripped.	Wait for safety thermal switch to lower water temperature in the tank
Frequent tripping of thermal switch	The set temperature is close to the limit	Turn the thermostat control to decrease temperature (-)
	Thermostat tube is covered with sludge	Remove the flange and gently clean the pipe from the sludge

**These faults are not defects of EWH and shall be fixed by the consumer or by a specialized organization at his own expense.**

**In case of failure to fix problems using the above recommendations or in case of others problems revealing you should contact the authorized service center listed in the operation manual.**

## **8. Disposal**

Subject to compliance with principles of EWH installation, operation and maintenance service and used water quality compliance with standards in effect the manufacturer sets the service life term of 7 years from date of EWH purchase.

All parts of the water heater are made of materials allowing, as appropriate, environmentally sound disposal which shall be made in accordance with rules and regulations of the country where water heater is operated.

## **9. Manufacturer's guarantee**

The manufacturer sets 1 year as the period of warranty for water heater, and warranty period for parts and components is as follows:

for water containing tank (inner tank) – 7 years;

for other components (heating element, thermostat, indicator lights, gaskets, temperature indicator, pressure relief valve) -1 year.

The warranty period is calculated from the date of EWH sale. If there is no or corrected date of sale and shop stamp, the warranty period is calculated from the date of EWH manufacture.

Release date of a water heater is encoded in a unique serial number, located on the identification plate on the casing. EWH serial number consists of thirteen digits. The third and fourth digits of the serial number are year of manufacture, the fifth and sixth digits - month of release, the seventh and eighth digits - day of EWH release. Claims within the warranty period are accepted only on presentation of the guarantee card with marks of the seller, and the identification plate on the casing of the EWH.

**ATTENTION! Malfunction of the safety valve or power cord is not a malfunction of EWH or shall not entail EWH replacing. Responsibility for compliance with principles of installation and connection shall be borne by the buyer (in case of connection by his own) or by the installer carrying out connection.**

**When installing and operating EWH, the consumer is obliged to comply with requirements ensuring trouble-free operation of the appliance during the warranty period:**

- **implement security measures and rules of installation, connection, operation and maintenance contained in this manual**
- **avoid mechanical damage from negligent storage, transportation and installation**
- **avoid damage caused by water freezing in EWH**
- **use for heating in EWH water without mechanical and chemical admixtures (see p. 6.2)**
- **operate the EWH with properly operating relief valve supplied with EWH (see p. 4.3).**

The manufacturer shall not be liable for defects due to violations of principles of installation, operation and maintenance of EWH set forth herein, including in cases where these defects have arisen due to invalid parameters of mains (electricity and water), where EWH is operated, and due to the intervention of a third party. Manufacturer's warranty does not cover claims for appearance of EWH.

Repairs, replacement of parts and components within the guarantee period do not extend the warranty period for EWH in general. The guarantee period for replaced or repaired parts shall terminate at the same time as EWH guarantee period.

**The manufacturer reserves the right to make changes in design and characteristics of the water heater without prior notification.**

## Rules and conditions of storage and transportation:

Rules and conditions of storage and transportation are indicated on the packaging.

## Information on measures taken upon detection of failure:

In the event an operational fault occurs disconnect the device from power supply, cut off water and call customer service, specified in the operational manual.

### Manufacturer:

Ferrol Heating Equipment (China) CO., LTD  
No.9 Jianshedonglu, Taoyuan Economic Development Zone Heshan, Guangdong, PRC  
.....code 1

«Heating Equipment» LTD  
44, Moskovskoe Shosse, Tosno, Leningrad Region, 187000, Russia .....code 2

Heating Equipment CO.,LTD.,  
No.108 #2 Shengping North Road Nantou Town, Zhongshan City, PRC  
.....code 3

### Manufacturer's code is indicated on the packaging of the goods.

All models have been certified and comply with requirements of Technical Regulations of the Customs Union, Tp TC 004/2011, TP TC 020/2011 and European Directives 2006/95/EC, 2004/108/EC.

Certificate No. TC RU C-CN.AB72.B.01146. ----- code 1

Certificate No. TC RU C-RU.AB72.B.01094. ----- code 2

Certificate No. TC RU C-CN.AB72.B.01143. ----- code 3

## State registration certificate number (EurAsEC):

RU.77.99.26.013.E.005880.03.11 dd 18.03.2011

RU.67.CO.01.013.E.001354.02.12 dd 14.02.2012

**Warranty service and customer service in Russia:** phone: 8-800-333-50-77 (Monday-Friday from 09:00 to 20:00; Saturday, Sunday from 10:00 to 18:00 (Moscow time); toll-free in Russia), e-mail: service@thermex.ru

**Head Service Center - installation and connection of EWH, guarantee and post-guarantee repairs:**  
196105, Russia, St. Petersburg, ul. Blagodatnaya, d. 63, phone: (812) 313-32-73.

Name and location of the importer, dealer, receiving quality claims, contact information:

ADD THE IMPORTER'S NAME

Phones and addresses of authorized service centers in other cities and regions can be found on the website [www.thermex.ru](http://www.thermex.ru) or by contacting the service centre specified by the seller.

## Note of sale

Model _____	Serial No. _____
Date of sale « _____ » _____	201 _____
Seller _____	Seal of the seller
Signature of the seller's representative _____	

The product is completed; I have no claims for the appearance of the product. Operation manual with the necessary marks is received. I have read, understood and accepted operation rules and warranty terms.

Signature of the buyer \_\_\_\_\_