

# Operation Manual

# Storage Electric Water Heater



Model: DT-EVRE 200

Please read the instruction manual carefully before use, and keep it for future reference.

**EAU TECHNIK GmbH** 

Email:info@eautek.com, Website: www.eautek.com

#### **Dear Customer**

We congratulate you on choosing a Storage Water Heater,

Meticulously designed, using only the highest quality materials

and components, your Water Heater is designed to last longer.

To enable your Water Heater to give you many years of

perfect troublefree service, we recommend you to follow the

instructions of the service manual carefully.

#### SAFETY INFORMATION

This appliance must be installed correctly by an authorized person and must conform to location regulations.

The installation must also comply with the instructions supplied by DOT-X

Please keep this instruction booklet in a safe place for future reference.

#### Installation and service only by an authorised person.

- DO NOT operate this system before reading the manufacturer's instructions
- DO NOT place articles on or against this appliance
- DO NOT store chemicals or flammable materials near this appliance
- DO NOT operate with panels or covers removed from this appliance
- DO NOT activate heating elements unless cylinder is full of water
- DO NOT touch any power supply cords, plugs or electrical conduits with wet hands.

Removal of access covers will expose 230V wiring. Access covers to be removed by authorized persons only.

This water heater is not intended to be operated or adjusted by children or infirm persons.

children must be supervised to ensure they do not interfere with the water heater.

If the power supply cord, plug or electrical conduit to the water heater is damaged, it must be replaced by an authorized person in order to avoid a hazard, using genuine replacement parts available from DOT-X

# **IMPORTANT INFORMATION**



#### Hot Water can cause scalds.

- Children, disabled, and the elderly are at the highest risk of being scalded.
- Feel water temperature before bathing or showering.

#### **SAFETY DEVICES**

For safe operation this water heater is fitted with a combination Pressure & Temperature Release (PTR) Valve, a thermostat and an over-temperature cutout for each heating element.

WARNING	<ul> <li>DO NOT tamper with or remove safety devices.</li> <li>DO NOT operate this water heater unless all safety devices are fitted and in working order.</li> <li>DO NOT block or seal the PTR Valve and drain pipe.</li> </ul>	
WARNING	The tank must be filled with water before Water Heater is turned ON.  The water heater warranty does not cover damage or failure resulting from operation with an empty or partially empty tank.	
To Fill the Water Heater	Make certain the drain valve iscompletely closed.  Open the shut-off valve in the cold water supply line.  Open each hot water faucet slowly to allow the air to vent from the water heater and piping.  A steady flow of water from the hot water faucet(s) indicates a full water heater.	
Condensation	Condensation can form on the tank when it is first filled with water. Condensation might also occur with a heavy water draw and very cold inlet water temperature. This condition is not unusual, and will disappear after the water becomes heated. If, however, the condensation continues, examine the piping and fittings for possible leaks.	

# IMPORTANT SAFETY INFORMATION. READ ALL INSTRUCTIONS BEFORE USING.



# WARNING!

For your safety, the information in this manual must be followed to minimize the risk of fire or explosion, electric shock, or to prevent property damage, personal injury, or loss of life.

Be sure to read and understand the entire Use and Care Manual before attempting to install or operate this water heater. It may save you time and cost. Pay particular attention to the Safety Instructions. Failure to follow these warnings could result in serious bodily injury or death.

Should you have problems understanding the instructions in this manual, or have any questions, STOP, and get help from a qualified service technician, or the local electric utility.



#### SAFETY PRECAUTIONS

Have the installer show you the location of the circuit breaker and how to shut it off if necessary. Turn off the circuit breaker if the water heater has been subjected to over heating, fire, flood, physical damage or if the ECO fails to shut off.

- Read this manual entirely before installing or operating the water heater.
- Use this appliance only for its intended purpose as described in this Use and Care Manual.
- Be sure your appliance is properly installed in accordance with local codes and the provided installation instructions.
- DO NOT attempt to repair or replace any part of your water heater unless it is specifically recommended in this manual.
   All other servicing should be referred to a qualified technician.

#### **HOW THE WATER HEATER WORKS**

The Water Heater has one heating element, each with its own thermostat. A Glass Lined steel cylinder stores water which is heated by a heating element located at the base of the cylinder. Its own automatic thermostats control the water temperature.

When the water heater is filled up with cold water and is switched on, the lower thermostat will activate the heating elements work simultaneously to heat up the water in the tank. The thermostat(s) were set at  $70^{\circ}$ C before the water heater was shipped from the factory.

#### **High Thickness Insulation**

The extra thick PUF insulation is over 50mm in thickness would ensure hot water remains hot for a longer time.

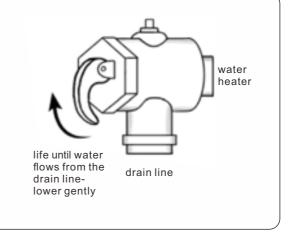
#### **Cathodic Protection**

Quality Anode rod is installed to increase the life of the tank and prolong water heater life.

#### **REGULAR CARE**

# Pressure and Temperature Release (PTR) Valve

This valve is located near the top of the water heater and is essential for safe operation. It is normal for the valve to release a small quantity of water through the drain line during heating



## **GENERAL INSTALLATION**

#### WATER HEATER LOCATION

All **DOT-X** mains pressure electric storage hot water systems have an ingress protection rating of IPX4 making them suitable for internal or external installation.

The water heater should be placed as close as practicable to the most frequently used hot water outlet point or points to minimize the delay time for hot water delivery. This will usually be the kitchen tap. For installations where the distance between the water heater and the outlets is considerable, a flow and return system can be used which minimize the waiting time for hot water delivery.

It is recommended that the water heater is installed at ground or floor level. It must be installed in a vertically upright position. The water heater must be accessible without the use of a ladder or scaffold. It must not be installed in roof spaces.

Ensure the pressure and temperature pressure release (PTR) valve, front covers, thermostats and heating elements have sufficient clearances and are accessible for service and removal. The information on the rating plates must also be readable. Leave adequate distance above the water heater (preferably the height of the water heater itself) so the sacrificial anode can be inspected and replaced via the top cover.

The water heater must be installed in freestanding mode on a level and stable base. For external installations, the water heater should be mounted on a concrete base at least 50mm thick or on well seasoned, evenly spread hardwood slats with a thickness of at least 25mm. Ensure the water heater does not stand on wet surfaces.

#### **PLUMBING CONNECTIONS**

The water heater has 'dual handed' PTR valve, cold supply and hot outlet connections. The brass plugs (supplied) are used to plug unused connections.

#### **PTR Valve Connection**

The PTR Valve must be fitted before the water heater is operated. Before installation, ascertain that the probe is straight and undamaged. Seal the thread with Teflon tape. Make certain the edge of the Teflon tape does not protrude past the end of the thread. Screw the reducing bush supplied into the fitting on the water heater marked PTR Valve, then screw the PTR valve into the reducing bush. Leave the valve outlet pointing down. Tighten the valve using the spanner flats - never use the valve body.

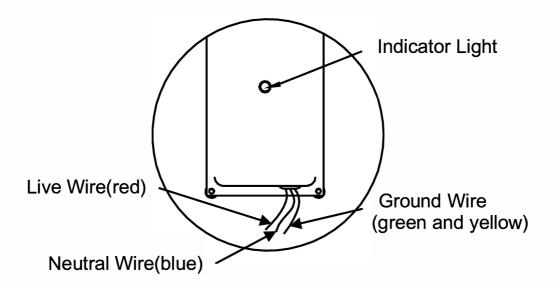
#### **ELECTRICAL CONNECTIONS**

The water heater must be filled with water prior to connection to the power supply.

Disconnect all power prior to installation and commissioning. This appliance is designed for single phase 230 Volts, AC mains electrical operation. All electrical connections must be made by an authorised person and must comply with all local electrical supply regulations.

The household wiring to the heater must be capable of withstanding the appliance load.

# GENERAL INSTALLATION



#### **Thermostat Setting**

The thermostat is adjustable from 49°C to 82°C. Turning the adjustment knob anticlockwise decreases the temperature setting and turning it clockwise increases the temperature setting. **DOT-X** advices that the thermostat be set at 70°C, this temperature is sufficient for most users. Ensure the power supply is switched OFF before removing the access cover to the element and thermostat.

# Installing the water heater.

To install the water heater in a clean dry area as near as practical to the area of greatest heated water demand. Long un-insulated hot water lines can waste energy and water.

Place the water heater in such a manner that the thermostat and element access panels can be removed to permitinspection and servicing such as removal of elements or checkingcontrols.

The water heater and water lines should be protected from freezing temperatures.

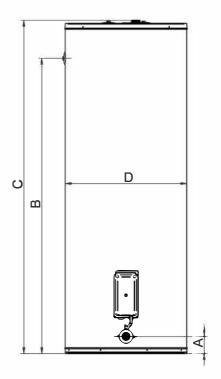
Make certain the floor underneath the water heater is strong enough to sufficiently support the weight of the water heater once it is filled with water.

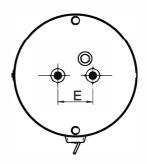
CAUTION: The water heater should not be located in an area where leakage of the tank or connections will result in damage to the area adjacent to it or to lower floors of the structure.

### Water Supply Connections

The installation of unions or flexible copper connectors is recommended on the hot and cold water connections so that the water heater may be easily disconnected for servicing if necessary. The HOT and COLD water connections are clearly marked and are 3/4 NPT on all models. Install a shut-off valve in the cold water line near the water heater.

# SPECIFICATIONS





MODEL	DT-EVRE 200
VOLUME	200L
A(mm)	100
B(mm)	1350
C(mm)	1516
D(mm)	518.5
E(mm)	204
No. Of Elements	1
Voltage (V)/Frequency (Hz)	230V/50Hz
Input Wattage	1.5/3kW
Temperature Range (°C)	49-82°C

## Replacement of Parts.

#### Instructions For Placing a Parts Order

Address parts orders to the distributor or store where the heater was purchased.

All parts orders should include:

- ① The model and serial number of the water heater from the ratingplate.
- ② Specify voltage and wattage as marked on the ratingplate.
- ③ Part description (as noted below) and number of partsdesired.

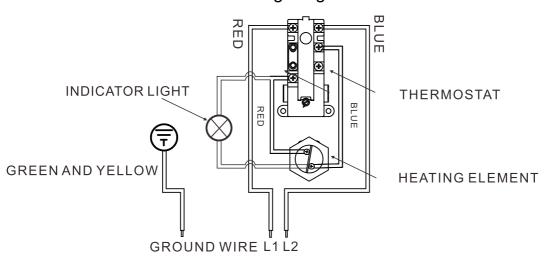
CAUTION: For your safety DO NOT attempt repair of electrical wiring, thermostat(s), heating elements or other operating controls. Refer repairs to qualifiedservice personnel.

WARNING: The pressure rating of the release valve must not exceed 150 PSI, the maximum working pressure of the water heater as marked on the rating plate.

#### Release Valve

Connect the outlet of the release valve to a suitable open drain so that the discharge water cannot contact live electrical parts or persons and to eliminate potential water damage. Piping used should be of a type approved for hot water distribution. The discharge line must be no smaller than the outlet of the valve and must pitch downward from the valve to allow complete drainage (by gravity) of the release valve and discharge line. The end of the discharge line should not be threaded or concealed and should be protected from freezing. No valve of any type, restriction or reducer coupling should be installed in the discharge line.

# Wiring Diagrams



# Before You Call For Service



Troubleshooting Tips Save time and money! Review the chart on this page first and you may not need to call for service.

Problem	Possible Causes	What To Do
Rumbling noise	Water condition may cause scale build up or mineral deposit on the heating element.	Remove and clean the heating elements.
Release valve producing popping noise or draining	Pressure build up caused due to high temperature or pressure in a closed system.	Call customer care.
Not enough or no hot water	A fuse is blown or a circuit breaker tripped.	Replace fuse or reset circuit breaker.
	Electric supply may be off.	Make sure electric supply to the water heater is connected properly.
	The thermostat may be set too low.	See the Temperature regulation of the water heater section of this manual.
	Improper wiring.	See the Installation of the water heater section of this manual.
	Manual reset limit (ECO).	See the Temperature regulation of the water heater section of this manual.
Water is too hot	The thermostat is set too high or malfunctioning.	See the Temperature regulation of the water heater section of this manual.