MasterMaid®

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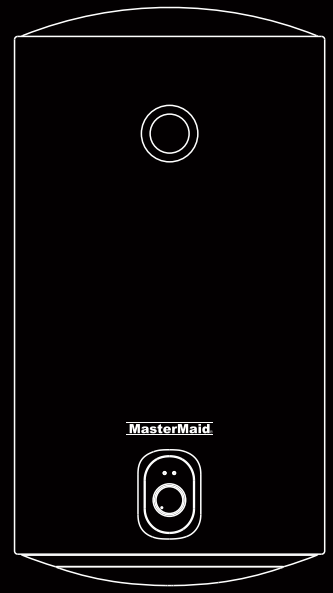
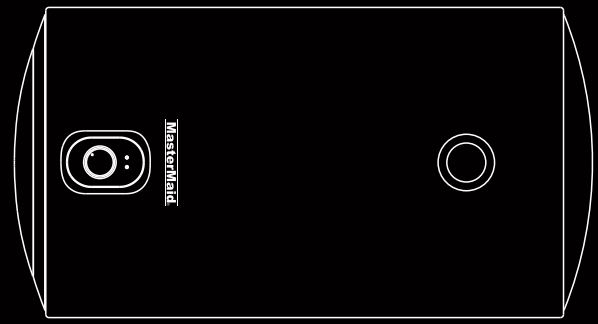
ELECTRIC STORAGE WATER HEATER
USE & CARE MANUAL





Thank you for choosing our product.
Please read this manual carefully before installing and using this product

Special advise

- The water heater must be installed in a standard way, and be checked to make sure that the fixed power socket must be grounded reliably, otherwise the water heater shall not be installed and used.
- Do not use extension boards.
- The water heater needs to be installed on a solid and firm wall.
- Using it for the first time or using again after emptying the inner tank, the water heater must be filled with water before connecting the power supply.
- Do not use the water heater to store water when there is no running water supply.
- The water heater shall be installed indoors. And it is turned off and not in use in winter, the water of the water heater shall be drained to avoid the danger of freezing in the water heater.
- It needs to be replaced by professionals, using the special power cord provided by the manufacturer if the power cord is damaged.
- Incorrect installation and use of the water heater may result in serious injuries and lose of property.

Application and feature

Application

- This water heater applies to be hot showering and washing in households, enterprises and public institutions, service industries and other places (Be Not Drinkable).

Feature

- Temperature Adjustment Function: the temperature can be flexibly adjusted in the range of normal temperature to 75°C.
- Heating Indicator: to indicate the current working state.
- Automatic Control: automatic control of heating and thermal insulation to ensure hot water supply at any time.
- Multiple Safety Protection: such as extra-temperature protection, water over-pressure protection (automatic pressure relief when the inner tank is over-pressure), and anti-backflow of hot water, etc, Safe and reliable.
- Durability: manufactured by using high-quality heat-resistant stainless steel electric heating element and electrostatic dry powder enamel inner tank, and is equipped with an anode protection device for the inner tank, it is anti-rust, anti-corrosion, anti-scaling with long life.
- Thick PUF: The thermal insulation layer is made of thickened polyurethane foam for efficient thermal insulation and energy saving.
- Mixing Valve: use the water mixing valve to adjust the water outlet, and its operation is simple and flexible.
- Multi-Purpose Function: it can be used for multiple water points at the same time.

STORAGE
WATER HEATERS

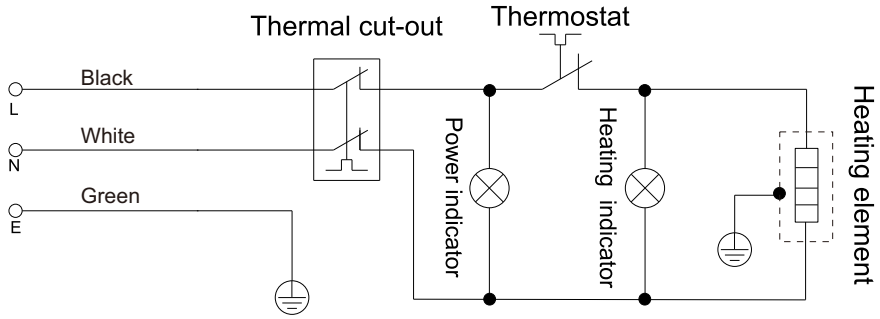
Faults and treatment

If water heater is abnormal, please check and deal with it according to the table as below.

Failures	Reasons	Treatment
The water not flowing out of the hot water outlet	1. The water supply system is cut off or the water pressure is too low	Check the water supply
	2. The water inlet valve is not open	Open the water inlet valve
	3. The failure of the water outlet valve	Replace the water outlet valve
The water flowing out of the hot water outlet is cold but the heating light is on	1. The hot water outlet is not open	Open the hot water outlet
	2. The water temperature is not adjusted properly	Appropriately increased set temperature, the amount of cold and hot water is controlled by adjusting the mixing valve.
	3. The heating time is too short to reach the set temperature	Continue heating
	4. The damage of electric heating element	Not 1,2,3 options, contact the maintenance department
The water flowing out of the hot water outlet is cold but the heating light is not on	1. Power outage or power switch in off position	Check the power line
	2. The Failure of thermostat	Not 1 options, contact the maintenance department
	3. The Failure of thermal cut-out	Not 1 options, contact the maintenance department
	4. The Failure of internal circuit	Not 1 options, contact the maintenance department

4. To clean the outside of the water heater, gently wipe with a damp cloth dipped in a small amount of neutral detergent (do not use gasoline or other solutions), then wipe with clean water and a dry cloth to keep the water heater dry.
5. If the water from the shower nozzle is not smooth, it may be caused by its internal blockage. Take apart the shower nozzle to remove the blockage.

Wiring diagram



Maintenance

In order to prolong the service life and ensure that the water heater has been operated with high efficiency, it is recommended to maintain according to the following methods:

1. Check the power supply plug and socket frequently to make sure that they have good, reliable contact and are well grounded without overheating phenomenon.
2. Clean the electrical heating components periodically (according to the local water quality) to remove the scale deposits adhering to the electric heating element; in the area with high scale deposits, the user can install an anti-scaling device at the front of the inlet (cold) water pipe.
3. Periodically (according to the local water quality) check the magnesium rod installed on the electric heating element. If it has been exhausted, please replace the new in time.

STORAGE
WATER HEATERS

Specifications

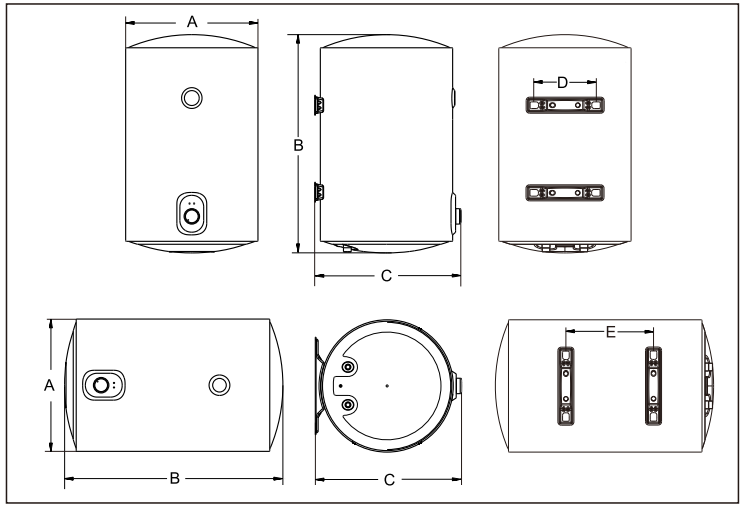
Water tank volume(Litres)	30	50	80	100	120	150
Rated power	1500W					
Rated voltage	220-230V~ / 60Hz					
Rated water pressure	0. 75MPa					

Scope of supply

After opening the packing box, please check the accessories according to the table as below. Keep the manual properly for your future use and maintenance.

Name	Quantity	Name	Quantity
Electric Water Heater	1 Unit	Operation Manual	1 Piece
Safety Valve	1 Piece	Installation kit	1 Set
Mesh sealing gasket	1 Piece		

Product dimensions for installation



(Fig.1)

Capacity / Dimension	30L	50L	80L	100L	120L	150L
A	350	390	460	460	460	460
B	579	726	752	892	1032	1242
C	385	425	495	495	495	495
D	205	205	205	205	205	205
E	166	304	277	417	557	767

Note: All the dimensions are in size(mm), D: Center to Center distance

Installation preparation

- Professional installers prepare installation tools and necessary measuring and qualified inspection instruments.
- Check whether the water heater is in good condition, and whether the random documents and accessories are complete.
- Carefully read this instruction manual to understand the function, usage, installation requirements and methods of the water heater.
- Check the user's power supply, must use 220-230V~,60Hz power supply.

(1) The electrical connection of the water heater shall generally use a dedicated branch circuit, and its capacity shall be greater than 1.5 times the maximum current value of the water heater;

(2) The position of the separate fixed socket shall be placed in a safe location where there is no danger of electric shock, and where water cannot be splashed.Check the separate fixed socket used by the water heater through visual inspection, and use a special measuring device (phase meter, test pen, grounding resistance meter, etc.) to ensure that the live wire and zero wire correctly install and and reliably ground;

(3) Check in detail whether the capacity of the electric energy meter, wire and separate fixed socket meets the requirements of the water heater;

(4) Check the pressure of the tap water in the water pipe by a pressure gauge. A pressure reducing valve shall be installed on the pipeline.

Select the installation location of the water heater:

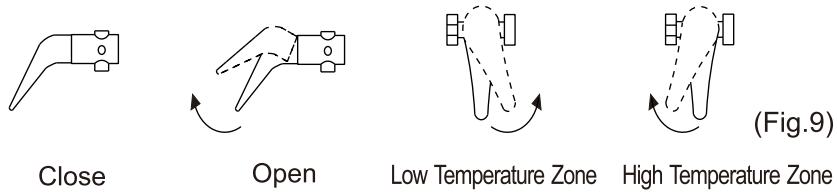
(1) Avoid places where flammable gas leaks or environments with strong corrosive gases;

(2) Avoid places where strong electricity and strong magnetic fields are directly affected;

(3) Avoid places where have direct sunlight, rain, wind blowing;

(4) Try to avoid places prone to vibration;

STORAGE
WATER HEATERS



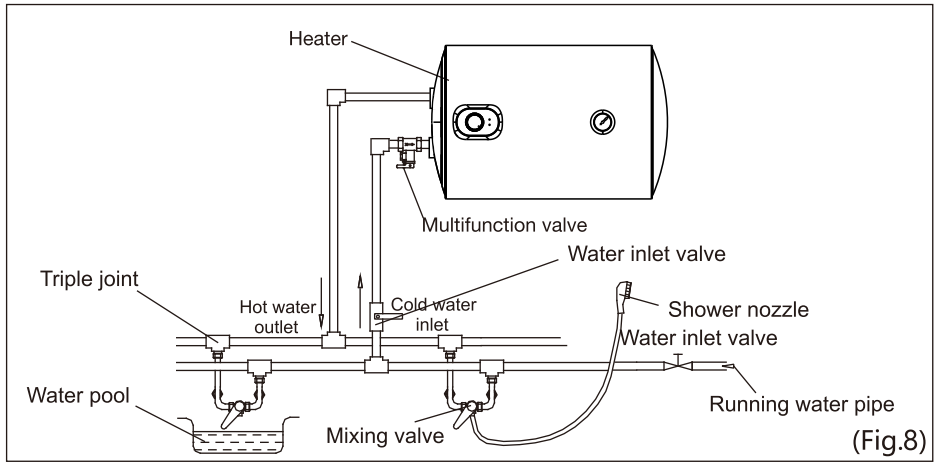
(Fig.9)

2. Insert the power plug into the power socket to open the water heater, and turn the temperature adjustment knob to the high temperature area, the heating indicator light will be on.
3. The heater will automatically control the temperature when the water temperature inside the heater has reached the set temperature,its heating indicator will switch off and it will enter the heat preservation state. When the water temperature falls below the set point the heater will be turned on automatically to restore the heating.
   Tip: Hot water can be used in the heating/heat preservation state.
4. If the pressure of tap water is too high, there may be dripping out of from the pressure relief port of the safety valve.This is a normal phenomenon, indicating that the water heater is releasing the excessive pressure.

Product cleaning

1. Be sure to cut off the power supply and close the water inlet valve before draining the sewage.
2. The water heater can be emptied and cleaned by the following methods:
- Cut off the power supply and close the water inlet valve;
- Remove the water pipes which is connected to between the water inlet and water outlet;
- Connect the water pipe which is connected to the water inlet to the water outlet;
- Remove the safety valve and open the water inlet valve to clean;
- Remove the water outlet pipe and the water pipe which is connected to the water outlet to empty.

3. After emptying and cleaning, re-install the outlet pipe and connecting water pipe.



(Fig.8)

Inspection and trial operation

(1) The connection and direction of the pipeline shall be reasonable, and there shall be no leakage of water at each connection.
(2) The electrical configuration shall be safe and correct, the water heater shall be grounded reliably, and the power plug and socket shall be closely matched.
(3) The mechanical connection shall be firm and reliable.
(4) Use a test pen or a multimeter to check the possible electric leakage parts of the casing to ensure that the water heater is safe and normal.
(5) The water heater shall be operated in accordance with the use method in this manual, and all performance indicators are consistent with this manual.

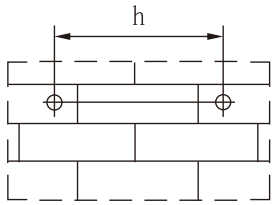
Methods of use

1. Using it for the first time or using again after emptying the inner tank, the water heater must be filled with water
   The method: open the water inlet valve, lift the handle of the mixing valve and turn it clockwise to the high temperature area, then start to inject water into the inner tank.When water flows out of the outlet pipe, it implies that the heater has been filled with water, then turn the handle of the mixing valve counterclockwise to the low temperature area and push it to the closed position (as shown in Fig.9).

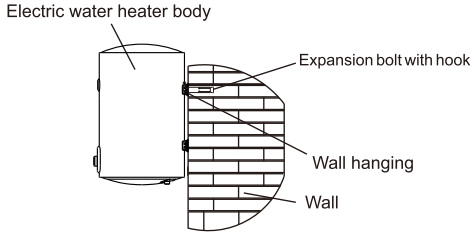
(5) Try to shorten the length between the water heater and the water point to reduce the heat loss of the pipeline;
(6) There must be a floor drain with sufficient drainage near the installed base to avoid failure of drainage;
(7) In order to facilitate future for repair, maintenance, relocation, etc., the installation position of the water heater must reserve a certain space;
(8) The bearing capacity of the installation surface shall not be less than 4 times the total mass of the water heater after filling with water, otherwise the user needs to install support bracket under the water heater for safety.

Installation operation

- The installation of water heaters shall be used random accessories, and professional installers shall not be arbitrarily replaced, omitted and remodeled.
- During installation, not to damage the safety guarantee structure of the building.
- The pipes and parts used for the installation and connection must meet the relevant standards and have been approved or designated by the manufacturer. If a one-way valve is added to the pipeline, an expansion tank with standard volume and pressure must be installed behind the one-way valve.
- Determine the installation position of the water heater, and it must avoid the steel bars and pre-buried pipelines in the wall. Drilling two holes with a φ16mm and a depth of 90mm on the solid wall by an impact drill, and this two holes shall be on the same horizontal line. Shown as table below for hole spacing. More than 300mm space shall be reserved on one side of the water heater installation cover for easy maintenance.

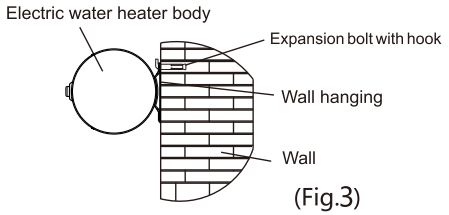


(Fig.2)



Rated Capacity (L)		30	50	80	100	120	150
Hole spacing h (mm)	Vertical	205					
	Horizontal	166	304	277	417	577	767

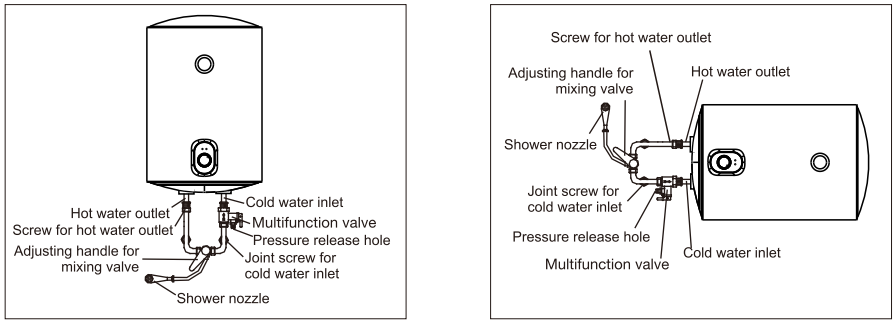
Note: All the dimensions are in size(mm)



(Fig.3)

Connection of pipelines

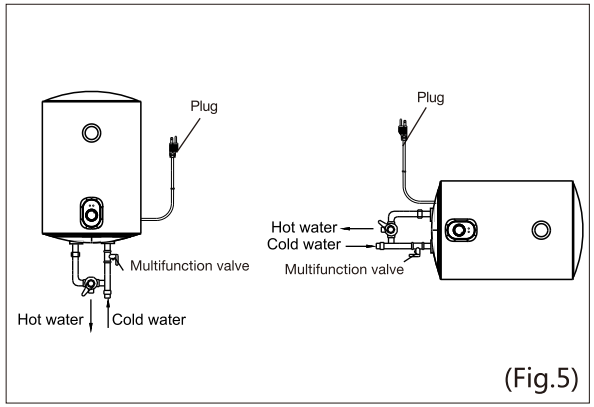
- The dimension of multifunction valve and the inlet /outlet pipe is ½" BSP.
- Connection of multifunction valve : install the multifunction valve with the heater on the inlet of the water heater. Mesh sealing gasket must be installed at the water inlet of the safety valve(See Fig.6).
- In order to avoid leakage when connecting the pipelines, the rubber seal gaskets provided with the heater must be added at the end of the threads.



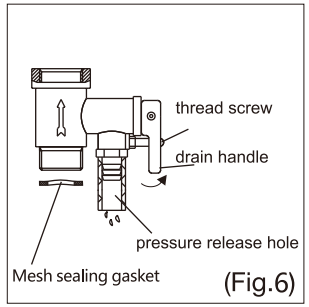
TYPICAL SINGLE OUTLET CONNECTION (Fig.4)

Cautions:

- The safety valve in the accessories (factory original logo 0.75 MPa) shall be installed on the water inlet joint, and it shall be wrapped by PTFE Tape to ensure the sealing.The arrow point is consistent with the flow direction of the water inlet of the water heater(as shown in Fig.6).
- A drain hose shall be installed at the pressure relief port of its. The safety valve shall be kept in a continuous downward slope status and installed in a frost-free environment, and then extended to the floor drain. Keep it connected to the atmosphere and fix it properly to prevent scalding from hot water or steam.
- The safety valve can prevent the pressure of the inner tank from exceeding the rated pressure of 0.1MPa . If the pressure of the inner tank is too high, the safety valve will automatically open and drain water from its pressure relief port to release the pressure.
  Under normal use, the handle of the safety valve shall be opened regularly to remove calcium carbonate deposits, and its method:
  Pull the drain handle upwards to a horizontal position (if the handle has screws, use a screwdriver to remove the screws before this procedure action), and confirm that the safety valve is not blocked (there is water leakage). If it is blocked, please contact the maintenance department.



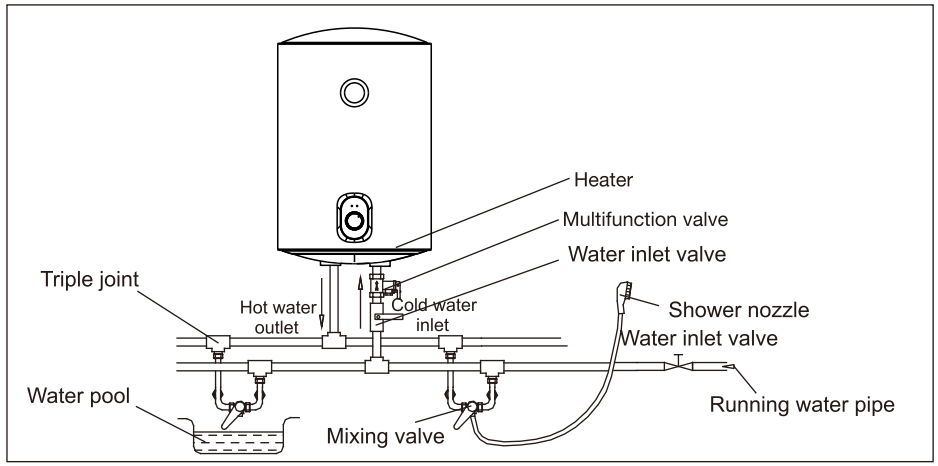
(Fig.5)



(Fig.6)

Multi of pipelines

- If the user wants to install a multiple-way supply system, refer to the method shown in Fig.7 and Fig.8for connection of the pipelines.



(Fig.7)