

Haier

SERVICE MANUAL

Order No.WH0911S001V0

Electrical Water Heater

Model No. FCD-JTSA50-III

FCD-JTSA60-III

FCD-JTSA70-III

FCD-JTSA80-III



⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Chapter 1: General Information

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1-2. Notice

1. The water heater which is used in situation I must be earthed and must be connected with the independent single-phase three-plug connector which is also well earthed!
2. The safety valve of our company which is attached with the water heater must be installed on the inlet pipe of the water heater!
3. The water heater which is used for the first time must be filled up with water before you switch on the current!
4. If the temperature of the water you set is over 50°C, it may burn your body, so it must be mixed with cold water before use!
5. Please don't make the spray-head towards human body when you open or close the valve or adjust the temperature of the water so as to avoid being burnt by a little stream of hot water!
6. The temperature of the pressure-relief vent of the safety valve is high, so it may scald your body!
7. This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
Children should be supervised to ensure that they do not play with the appliance.

Chapter 2: Product Feature

2-1. Features

1. Safety:

High-quality heat proof stainless steel electric heating element, overtemperature protection; overpressure protection of tank; safe and reliable.

“Safe Care” patented design together with the function of monitoring and displaying of live ground wire has become a real safeguard for family safety.

2. Durability:

The shell adopts dusting anticorrosion treatment, handsome and durable enamel tank, with reliable quality and long operation life.

3. Convenience:

Adjustable heating temperature. Adjustable water temperature.

Adjusting range: water inlet temperature ~75°C.

4. Multiple usage:

Enclosed structure, capable of supplying water to multiple places like toilet, kitchen etc. Suitable for family, enterprises, service trades like beauty care on hot water supply (not drinkable).

5. Nice molding, horizontal type wall-mounting design, saving space.

The water heater you purchased is the improved model of the series product. Please operate according to the user's manual.

2-2. Product Code illumination and Series Introduction

2-2-1. Model Identification

F	C	D	J	T	S	A	□	III
1	2	3	4	5	6	7	8	9

2-2-2. Series Introduction

1: F- Closed water heater .

2: C- Storage water heater.

3: D- Electrical water heater.

4: J- Insulation.

5: T-Porcelain enamel inner container.

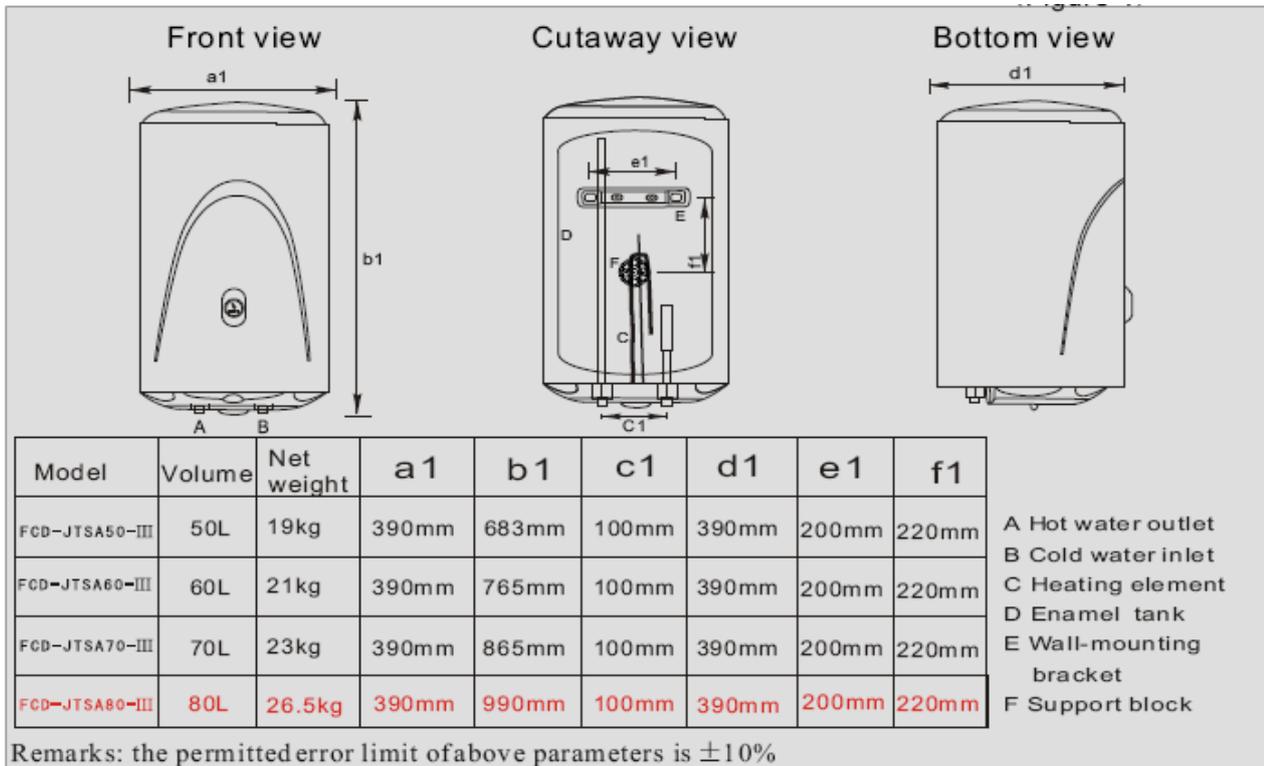
6: S- Vurtical installation.

7: A- The serial number of appearance.

8:□- Capacity : 50L/60L/70L/80L.

9: III -The third generation of PTO I 0.

2-3. Dimensions



Chapter 3: Installation

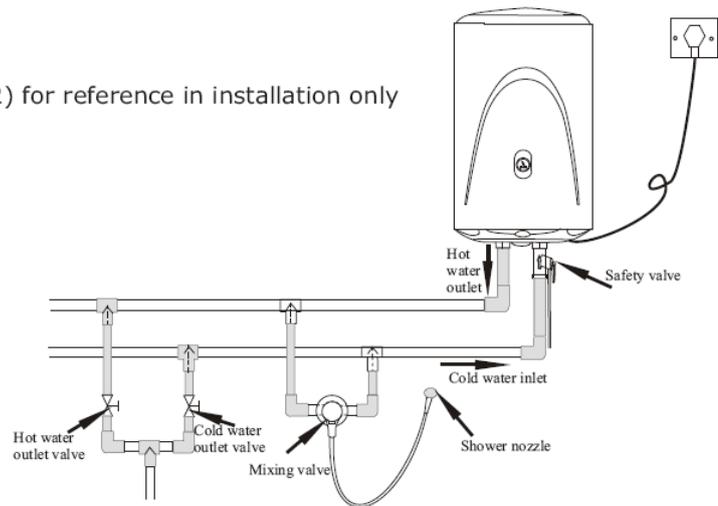
3-1. Accessory parts

Part Name Qty	Electric water heater	Safety valve	Expansion bolt	Expansion hook	User's manual	Drain hose
Product Model						
FCD-JTSA50-III	1	1	2	2	1	1
FCD-JTSA60-III	1	1	2	2	1	1
FCD-JTSA70-III	1	1	2	2	1	1
FCD-JTSA80-III	1	1	2	2	1	1

3-2. Installation

1. Installation must be made by installers of or designated by our company after-service department. The water heaters shall be wall-mounted.
2. Before installation, make sure water heater rear wires are fit firmly. Determine an installation location. Make four holes $\phi 12\text{mm}$, 65 mm deep in the wall with an impact drill according to installing dimension. Insert fix expansion hooks and expansion bolts in corresponding wall holes. Lift the water heater. Insert wall rack onto the hooks and bolts. Fit flat washers, rear wires and nuts in turn onto the bolts (see Figure 2). Tighten the nuts and check them firm. Install accessories such as safety valve, drain hose as shown in Figure 3. Use sealing compound to prevent water leakage.
3. To facilitate installation and removal, it is suggested a G 1/2" movable nut is fitted at appropriate locations on inlet and outlet pipes respectively. Find water supply location. Connect inlet pipe, outlet pipe and city water pipe respectively to the use point.
4. The hot water pipe shall not be too long to reduce the heat losses.
5. Please reserve some space in installation for the future maintenance.

(Figure 2) for reference in installation only



3-3. Connection and use of safety valve

1. The safety valve should be connected to the cold water inlet pipe. Please check carefully if the direction is correct after installation. The correct direction of installation is that the arrowhead on the safety valve should point to the water heater.
2. Please connect the drain hose to the safety valve. Connect one end of the hose to the safety valve vent and the other end to the sewage drain. The hose can be cut short or extended as necessary. The hose shall be installed as inclined downward.(see to Figure 4)
3. The water may drip from the discharge pipe of the pressure relieved device and that this pipe must be left open to the atmosphere. Check safety valve once a month as follow: move the small handle of safety valve, if there's water flowing out, safety valve is normal; if there's no water flow, please contact local after-sales service station.
4. The pressure relief device is to be operated regularly to remove lime deposits and to verify that it is not blocked.



(Figure 4)

3-4. Attentions in Installation

1. During installation, adequate space must be reserved for future maintenance and repair. If the water heater is installed within decoration boards, the right board shall be removable to facilitate removing the plastic cover during maintenance.
City water inlet pressure shall not be less than 0.05 MPa,Maximum pressure can not exceed 0.7MPa.
2. Electric water heater shall be installed indoors with ambient temperature above 0℃. The pipes shall be collectively laid. Hot water outlet shall not be too far from use points. In case farther than 8 m, hot water pipe shall have a thermal insulation to minimize heat loss.
The mounting wall shall be firm and reliable to support twice the weight of water heater full of water. Non-load bearing walls or air brick walls must have corresponding protective measures like additional

support, wall-through screws or back boards.

3. Electric water heater shall be located in a place easy for use, maintenance and with a floor drainer. In case the tank or pipes leak, nearby or lower facilities shall not be damaged. The installation location shall avoid being above toilet bowl, bathtub, washbasin or doorframe, where will cause a suppressed or unsafe feeling to users.

4. Power socket for water heater shall be in a dry place free of water splash. (splash-proof box is preferred).

5. Do not confuse inlet and outlet water pipes. Safety valve shall be installed at designated position with no random modification. The safety valve pressure relief vent shall keep open to the air. Do not block it.

Chapter 4: Operation

4-1. Operation Instructions

1. For the first use after installation, due to there's no water within the tank, first the city water inlet valve and mixing valve must be opened. Close the mixing valve when water flows out continuously from the showerhead or other outlets (the tank is full). Check connections are free of water leakage, and insert the power plug.

2. Turn the knob to set your desired water heating temperature, which can be stepless changed between cold water inlet temperature and 75°C. In heating mode, heating lamp is lighted on. Normally the knob shall be positioned at highest temperature. This machine has a thermostat function, which automatically switches off the water heater when temperature reaches the setting value, and switch on again when water temperature decreases to certain value.

3. City water pressure ≥ 0.75 MPa will cause much water flowing out from safety valve pressure relief vent. This is due to too high water pressure. Please ask after-sales service for correction.

4-2. Attentions in Operation

1. To avoid causing machine troubles, do not connect power before tank is full of water. Adjust a suitable temperature before use, for water temperature above 50°C may burn your skin.

2. This product is closed water heater, which can supply hot water through pipe connection to several points like bathroom (bathtub, washbasin, showerhead) and kitchen.

3. Heating adjustment can be made flexibly all year round adapting to climate changes. In long-term out-of-use or maintenance, you can close city water pipe valve, open mixing valve to hot water range, and move up safety valve handle to drain the tank. To avoid injury, before next use, it is suggested to first open hot water valve before switching on the water heater, exhausting gas possibly retained in the pipeline. In this case, no smoke or fire is permitted near the open valve.

4. Carefully check and confirm all parts are in good condition.

5. Provided hot water quantity can meet use demand, temperature setting shall be possibly low. It can minimize heat dissipation, high-temperature corrosion and sedimentation, ensuring a longer service life.

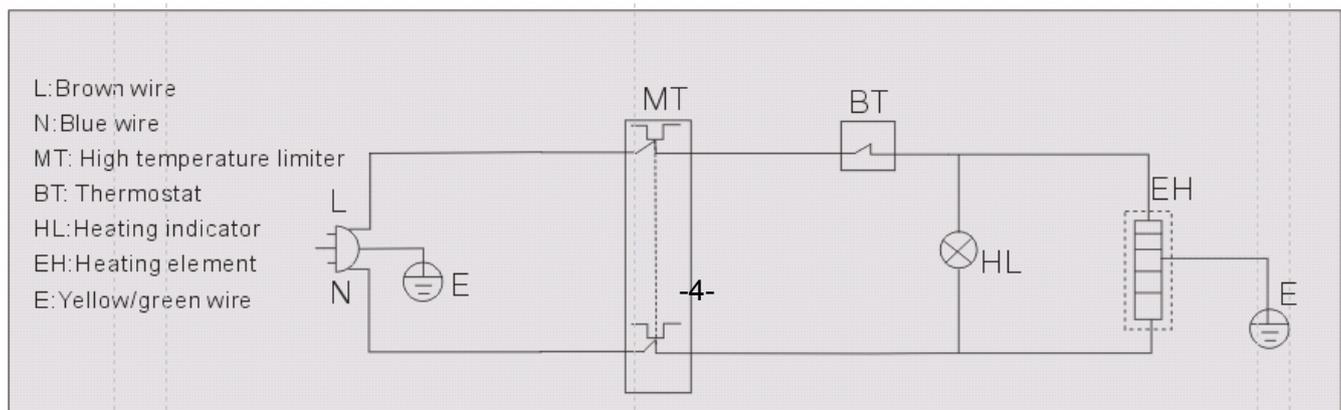
6. Regularly ask servicemen to make safety inspection, remove sediment on heating elements, and check consumption of anode bar. Too much consumed anode bar shall be replaced.

Chapter 5: Specifications and Circuit Diagram

5-1. Specifications

Rated voltage	Frequency	Power	Rated pressure	Waterproof grade	Tap water pressure
230V~	50Hz	1650W	0.75MPa	IPX4	no less than 0.05MPa

5-2. Circuit Diagram



Chapter 6: Usage 、 Cleaning and Maintenance

6-1. Usage

1. After installation, as the tank is empty in the first usage, be sure to open the faucet water inlet valve and mixing valve. When the tank is filled with water, and the shower nozzle or other water outlet keeps water outputting, please close the mixing valve, check if there's water leakage at each joint, and plug the power plug.

2. Turn the knob as per the needed water temperature. The mark of knob increases from water inlet temperature to 75°C. You can set heating temperature steplessly. The heating indicator will shine under heating mode. Generally the knob should be set to the highest scale. The water heater can regulate the temperature automatically. The power will be switched off automatically when the set temperature is reached, and will be switched on automatically when the temperature drops to certain level. As it continues heating, you can use hot water as well.

When the tap water inlet pressure arrives or exceeds 0.75MPa, the drain hose of safety valve will discharge large amount of water. It is due to extra high water pressure. Please contact the after service for disposal.

6-2. Cleaning and Maintenance

6-2-1. Statement

This water heater shall only be repaired and maintained by qualifie servicemen. Improper maintenance may cause severe injury or damage. Before opening or repairing water heater, please do pull out the power plug.

6-2-2. Note

Before asking for service, please refer to troubleshooting section to resolve easy problems.

6-2-3. External Cleaning

Disconnect power supply before cleaning. Gently wipe with wet cloth dipped with a little of mild detergent. Do not use gasoline or other solvents. Finally dry with dry cloth. Keep water heater dry. Do not use cleansers containing grinding agent (e.g. toothpaste), acids, chemical solvents (e.g. alcohol) or polishers to clean.

6-2-4.Internal Cleaning

To ensure high working efficiency, heating elements and tank liner of water heater shall be cleaned once in three years. Take care not to damage protection layer on heating elements and tank liner inner surface. According to different local water qualities and use habits, magnesium rod shall be periodically replaced. If maintenance is needed, please contact local service station.

Chapter 7: Trouble shooting

Phenomenon	Confirmation items	Remedy
No water	①No water supply or water pressure too low	Check
	②Hot water access close	Check and clear
Only cold water but pointer light when heat	①Hot water access close	Check and open
	②Temperature not set to desired setting	Adjust temperature of water
	③heating time limit and setting temperature not obtain	Keep heating
	④Defective heater	Contact with service department when ①②③ are excluded
Only cold water and pointer not light when heat	①No power to heater	Check power socket
	②Uncontrollable thermostat	Contact with service department when ① are excluded
Heating pointer always light	①Setting water temperature not obtain	Keep heating
	②uncontrollable thermostat	Contact with service department when ① are excluded
Unconstant flow and temperature of water	Unconstant water pressure	Adjust the flux of outlet water or use with constant water pressure
Insufficient hot water	①Temperature set too low	Adjust setting water temperature
	②Excessive water pressure	Adjust the flux of outlet water

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