

Please read and follow the installation and operation instructions carefully, to ensure the long life and reliable operation of this appliance.

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Attention!

This is not a do-it-yourself project. Failure to have this appliance installed by a licensed plumber and electrician will void all warranties.

Under no circumstances should you attempt to install, repair or disassemble the electric instantaneous water heater without first shutting off all power to the unit directly at the circuit breaker box. Installation of this product is restricted to indoor locations only by licensed plumbing or electrical contractors.

Important Safety Instructions

1. The installation must be in compliance with your local electrical and plumbing codes.
2. This appliance must be EARTHED.
3. All wiring and installation must be supervised by a qualified electrician.
4. This appliance can be used by children aged from 3 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
5. This appliance **MUST** be permanently connected to the fixed circuit breaker and it must be installed vertically. **DO NOT** install this appliance near to tinder or strong magnetic field place.
6. **WARNING: Do not switch on if there is a possibility that the water in the heater is frozen.** as this could result in serious damage to the unit. Wait until you are sure that it has completely thawed out before you switch it on.
7. Please feel the outlet hot water temperature with hand to make sure it is suitable for showering before taking shower to avoid getting scalded.
8. Before connecting pipes to the water heater hoses, it is extremely important to **FLUSH** the pipes to wash away all plumbing paste or residue in the pipes.
9. If there is damage to the wire, you must contact qualified electrician to replace it with dedicated wire from our authorized dealers.
10. The shower head should be cleaned and descaled periodically.
11. The regulation valve at water inlet should work periodically in order to remove calcium carbonate deposits.
12. The drain-pipe which connected to the water relief valve should be installed continuous downward in frostless environment.
13. The spray head must be descaled regularly.
14. An all-disconnection device should be connected in fixed wiring.

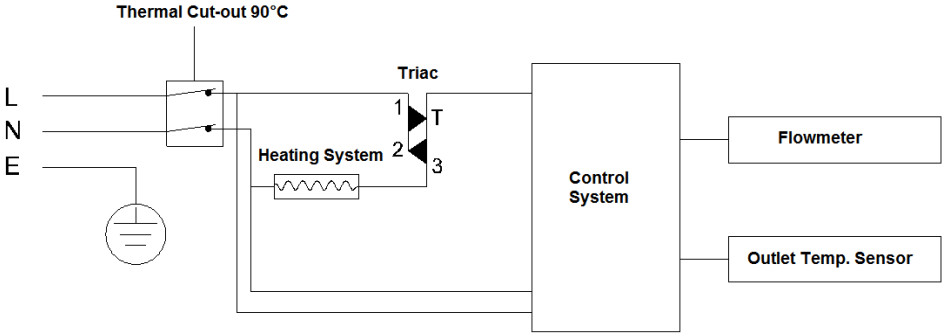
■ Product Features

The electric instantaneous water heaters are incorporated with patent heating technology with multi-safety devices. Besides, the unit has the following features.

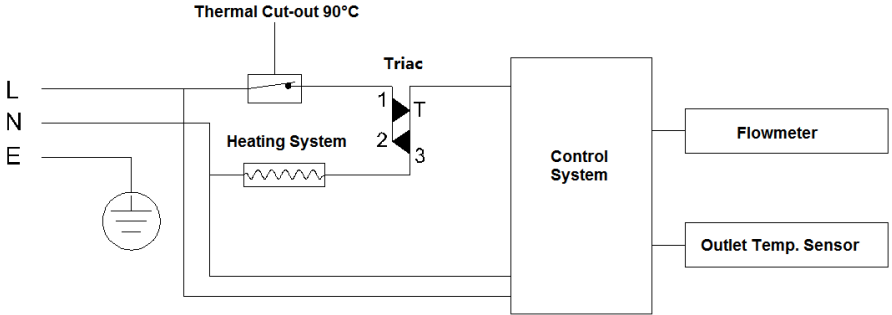
1. Instantaneous heating for on demand hot water, no pre-heating, no stand-by heating loss. energy-saving.
2. ELCB safety function, touch key for operation, LED lamp indicate the working condition and failure.
3. Stepless rotary knob to adjust outlet temperature, automatic thermostat.
4. Micro-computer control, adopting patent heating technology. Water is completely separated from electricity by multi-layers structure.
5. Overheat Protection: if the outlet temperature $\geq 65^{\circ}\text{C}$, the water heater will stop working until the outlet temperature dropped to 50°C , it will start to work again automatically.
6. Malfunction of sensor- when there is malfunction with the temperature sensor, the heater stops working and the red lamp keep flicker.
7. Dry-heating thermal cut-off. When the heating temperature is over 90°C , the power will be cut off.
8. Micro-computer automatic electricity and water consumption calculating function.

■ Electrical Diagram

FC35Z, FC55Z, FC90Z



FC70Z

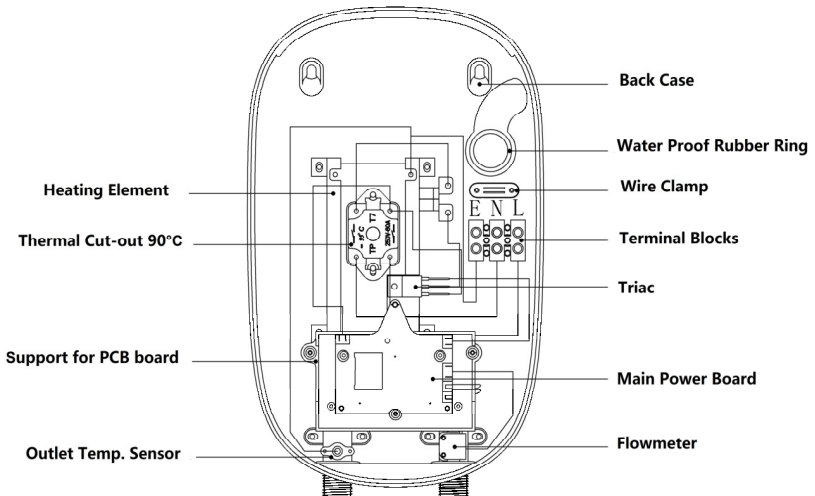


■ Technical Data

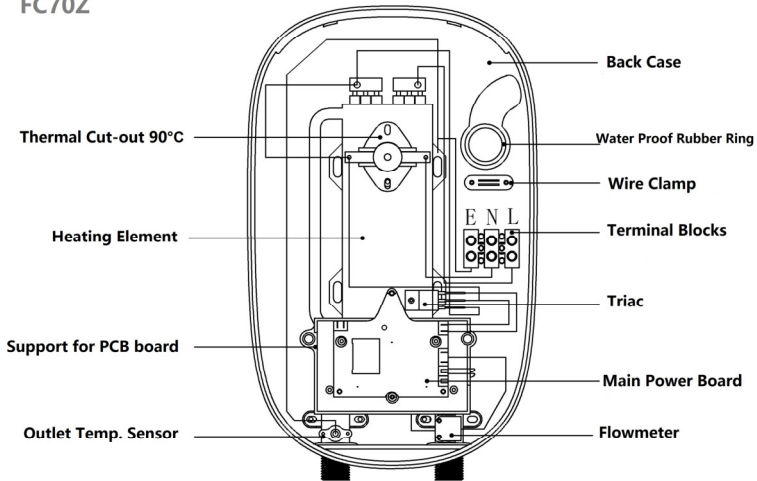
Model	FC35Z	FC55Z	FC70Z	FC90Z
Rated Voltage	220V-240V			
Rated Power	3.5kW	5.5kW	7kW	9kW
Rated Current	15.2A	23.9A	30.4A	39.1A
Rated Pressure	0.6MPa			
Water Pressure	0.02-0.6MPa			
Min. Water flow to activate unit	1.2L/min.	1.5L/min.		
Safety class	IP25			
Temp. setting arrange	30°C-55°C			
Overheat protection	65°C			
Connecting wires section	2.5mm ²	2.5mm ²	4mm ²	6mm ²
Thermal cut-off	90°C			
Pipe section	G1/2"			
Product Size	338*211*72mm			

■ Product Inner Structure

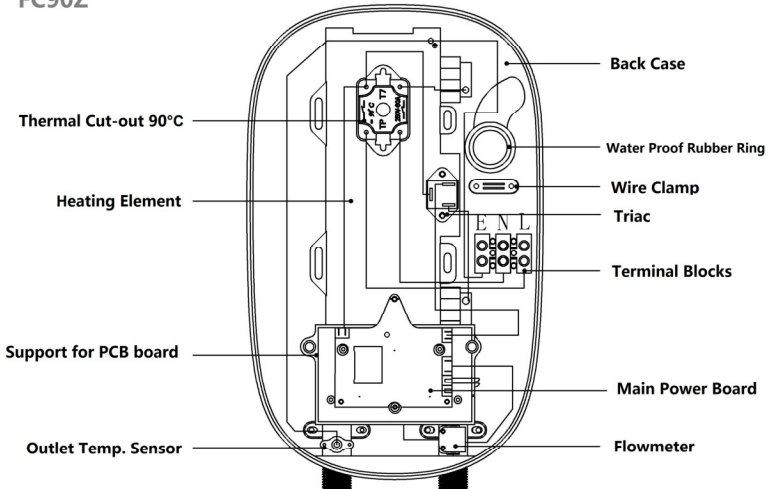
FC35Z, FC55Z



FC70Z



FC90Z



■ Installation Guideline

The installation must be in compliance with the National Electrical Code, your local electrical and plumbing codes.

1. Make sure the appliance is intact, and the fittings are complete.
2. Please make sure the main power supply, water pressure, grounding condition, ammeter and wire reach the standard of installation requirement.
3. The appliance must be connected to properly grounded dedicated branch circuits of proper voltage rating. Ground must be brought to the “ground” at the circuit breaker panel.
4. This appliance **MUST** be permanently connected to the fixed circuit breaker. If you don't use the heater, please switch off the circuit breaker.
5. **DO NOT** install this appliance near to tinder or strong magnetic field place. The unit must only be mounted in a VERTICAL position near by the water fittings. Please electrify try the machine after getting through waterway.

■ Installation Method

● Fixed installation on the wall

Locate an appropriate place on a section of wall as above mentioned.

Fig 1 → Front and back of the appliance.

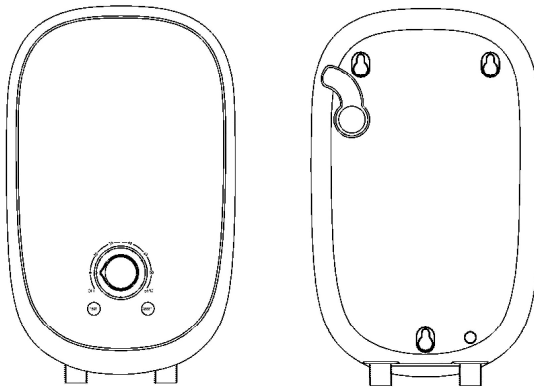


Fig 2 —————> Use a cross screwdriver to remove the screw at point **A**, then use a straight screwdriver to insert into the 2 hole at point **B** and pry up lightly, the front case will be easily removed.

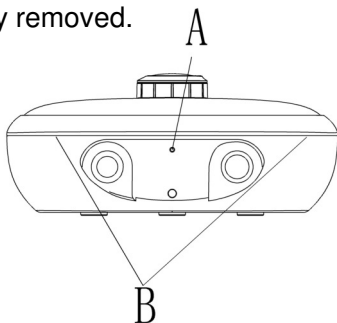


Fig 3 —————> Open the front case, please remove the rubber sleeve for wire, for convenience of the wire passing through the rubber sleeve, please cut the end of the rubber sleeve according to the wire size.

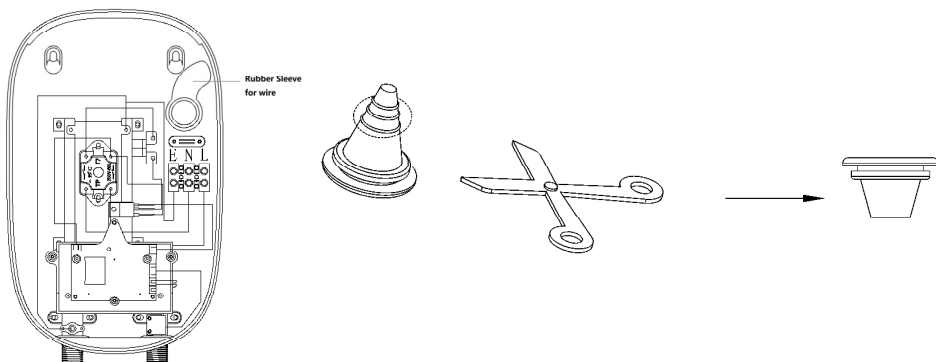


Fig 4 —————> Then connect power cable to the terminal blocks with L, N and E in pointed position.

FC35Z, FC55Z

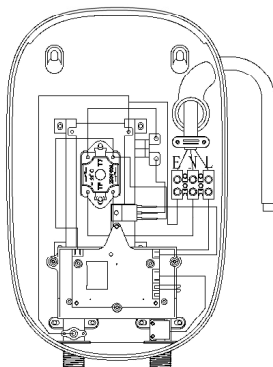


Fig 5 → Fix the front cover on the appliance, then nail the screws to fix the front cover.

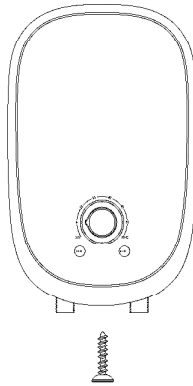


Fig 6 → Use the cardboard to make 3 mark for punching; then drill 3 hole with 6mm diameter, and insert 3 expansion screw in the wall and put 4*25mm self-tapping screw into the expansion screw.

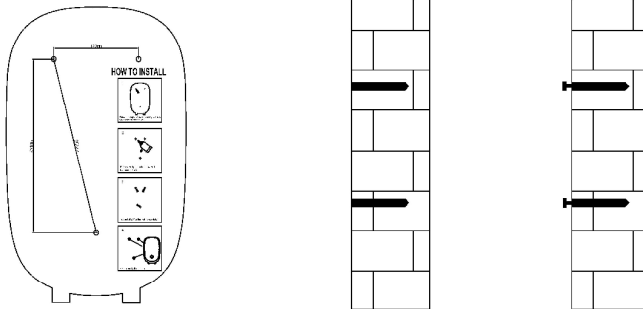


Fig 7 → Fix the appliance on the wall.

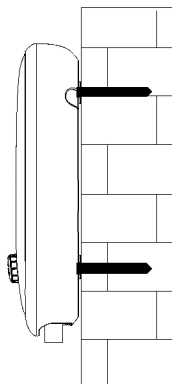
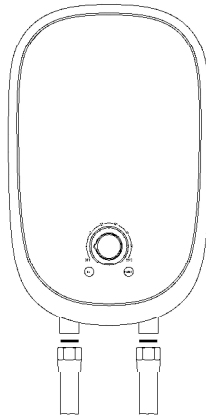


Fig 8 → Connect the water pipe to the water inlet and water outlet connections, please remember to install the rubber seal ring.



●Water connections

- 1, All water pipe must comply with national and applicable state and local water pipe codes.
- 2, The unit should be connected directly to the main water supply. Flush pipe with water to remove any debris or loose particles.
- 3, It is required that use G1/2 " water connections to fit all the models.
- 4, Please remember to install rubber seal rings at the connections. When all water connections are completed, check for leaks and take corrective action before proceeding.




●Electrical connection

- 1, All electrical work must comply with national and applicable state and local electrical codes
- 2, All unit must be connected to a properly grounded dedicated branch circuit of proper voltage rating.
- 3, All the models can be connected to a single circuit, use a supply cable protected by a double pole breaker
- 4, While fed the cable to terminal blocks, please make sure the metal wire ends and the terminal blocks to touch completely. Then tighten the screws up to make sure the full current can go through.
- 5, Before beginning any work on the electric installation, be sure that main breaker panel switch is OFF to avoid any danger of electric shock, all mounting and plumbing must be completed before proceeding with electrical hook-up.

■ Operation Instructions







1. Turn on the circuit breaker to bring electrical power to the unit.
2. Open water faucet for a few minutes until water flow is continuous and all air is purged from water pipes. The unit must be operated after the breakers are turned on.
3. Check ELCB (Earth Leakage Circuit Breaker) function:




After the unit is supplied with power, make sure there is no water supply, rotate the knob to OFF position

- Touch and hold on the key  for 5 seconds till the red LED lamp keep on. In test condition, the water heater is not available for working.
- Then single touch the key  to reset the water heater meanwhile exit the ELCB test condition, the red lamp should be off if the ELCB function is normal, if the red lamp can not be off while touch the , that means the ELCB function is normal. and the water heater is not available for operation.

5, Turn on water supply, then adjust the outlet temperature from 30-55°C by stepless rotary knob, the **BLUE** LED lamp keep on in normal working condition. If there is electricity leakage, the **RED** LED lamp keep on.

6, **Overheat Protection:** if the outlet temperature $\geq 65^{\circ}\text{C}$, the water heater will stop working until the outlet temperature dropped to 50 °C, it will start to work again automatically.

7, **Limit Max Working Power:** Make sure the water heater is supplied with power, but no water supply, rotate the knob to OFF position, touch  and  at the same time and hold on for 5 seconds, the LED lamp quickly flicker. Please touch  to limit the max. power, the LED lamp appear color  and clicker quickly means limit power is 100% of the model power. the LED lamp appear color  and clicker quickly means limit power is 80% of the model power. the LED lamp appear color  and clicker quickly means limit power is 60% of the model power. Please check below sheet to explain further detail,

Model					
Lamp Color & Power Rate		FC35Z	FC55Z	FC70Z	FC90Z
Model Power		3500W	5500W	7000W	9000W
	P*100%	3500W	5500W	7000W	9000W
	P*80%	2800W	4400W	5600W	7200W
	P*60%	2100W	3300W	4200W	5400W

■ Trouble-shooting

Problems	Possible Causes	Corrective Actions
1.in let and outlet fittings leaking	B. Fittings not tight C. Rubber washer worn-out	A. Tighten fittings. B. Change rubber washer.
2. Functional keys not working	A. Key or PCB damaged.	A. Change key or PCB.
3, No heating	A. Power supply is not normal B. Inlet Water flow is too low C. The rotary knob didn't point to correct position. D. Inlet filter net was blocked E. Flowmeter was blocked. F. Thermal Cut-out cut off. G. Built-in power regulator failed. H. Heating element failed.	A. Connect the power correctly. B. Increase inlet water flow C. Adjust the rotary point to correct position. D. Clean the filter net. E. Clean or contact local service to replace flowmeter F. contact local service G. contact local service H. contact local service
4. Water too hot	A. Too high temperature set. B. Water flow too small.	A. Set a lower temperature. B. Open valve bigger.
5, Outlet temperature can not reach setting temperature	A. Inlet temperature is too low, inlet water flow is too big. B. Outlet temperature sensor failed	A. Reduce the inlet water flow. B. Contact local service.
6. Outlet gets water smaller and smaller.	Inlet strainer or shower clogged.	Clean strainer and shower.
7.No water comes out	Inlet filter net/flow meter is blocked	Clean the filter net/flowmeter
8.Red lamp keep flicker	Outlet temperature sensor failed	Contact local service to replace outlet temperature sensor
9..Red lamp keep on	A, Didn't reset the machine after operating "TEST" B, Electricity leakage	A, Touch "RESET" B, Contact local service
10.Blue lamp keep flicker	Outlet temperature is over $\geq 65^{\circ}\text{C}$	Reduce outlet temperature or increase the inlet water flow

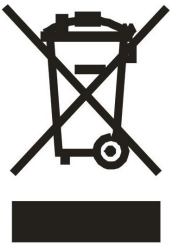
■ Normal Maintenance

Note: Do not attempt to repair this water heater yourself. call a service person for assistance. Always shut off the power supply while operating maintenance.

It is not required any regular maintenance. However, to ensure consistent water flow, it is recommended following maintenance.

- 1, Periodically remove scale and dirt that may build up at the aerator of the faucet or in the shower head.
- 2, There is a built in filter screen at inlet connection which should be cleaned from time to time. Please turn off the water flow before doing this.

■ Correct disposal of this product



This symbol on the product, or in its packing, indicates that this product may not be treated as household waste. Instead, it should be taken to the appropriate waste collection point for the recycling of electronic equipment, By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by the inappropriate waste handling of this product. For more detailed information about the recycling of this product, please contact your local council, your household waste disposal service, or the shop where you purchased the product.

■ Packing List

Item	Unit	Quantity
Electric Water Heater	Unit	1
Rubber plug and screw	Set	1
Operation and Installation instructions	Copy	1
Shower accessories (optional)	Set	4 for each
Screw sets	Set	1