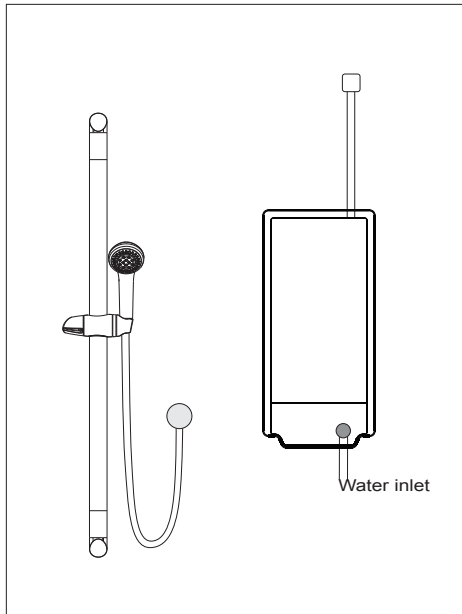




# Online Electric Water Heater



**Model : CWM-DF24A**

**Instruction Manual and Warranty Card**

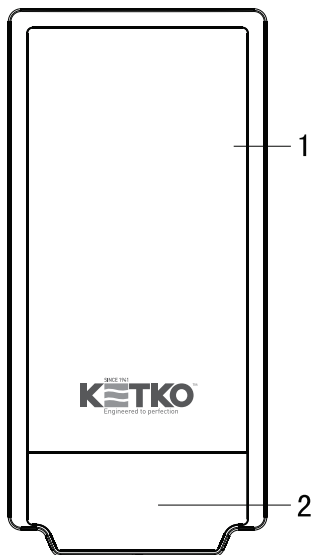
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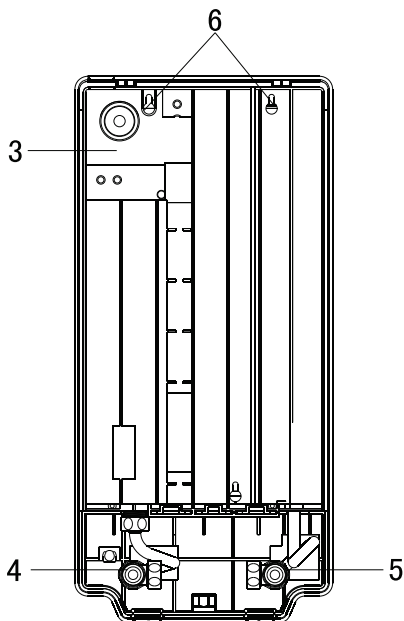
- Please read this instruction sheet carefully before use
- Please keep it properly for reference.



## Part Name



Front cover



Back cover

- 1, Front cover 2, Screen 3, Cable input 4, Water inlet  
5, Water outlet 6, Pressure relief valve 6, Screw hole

Remark: All the pictures in this instruction sheet are for reference only, due to continue improvement of products, product and accessories you buy may not be exactly the same as pictures in the book, please come to an understanding!

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## Features

☞ Safe

- "Patent designed" Start with Nickel chrome..... nickel chrome heating elements plus wall insulation defender, protect user's safety.
- Intelligent control system, water and power cut off, high pressure or temperature protection.
- Creepage indicator.
- High temperature protection (When temperature is higher than  $75 \pm 5^{\circ}\text{C}$ , power will be off automatically, water heater cannot start heating. Heating without water protection. Safe earth wire protection

☞ Energy saving

- Temperature setting for different seasons
- Start it when use, no pre-heating or thermal insulation is required, save energy and electricity.

☞ High efficiency

- Professional nickel chrome heating elements have 99% heating efficiency.
- Heating can's part temperature is lower than  $63^{\circ}\text{C}$ , lime scale cannot be formed, faster, longer and higher heating efficiency.
- Multi water supply system, supply water for different bathrooms and kitchen.

☞ Nice appearance

- Neat and compact industrial design, nice looking, luxurious and generous

☞ Fast

- No pre-heating is required; hot water is available after turn on the machine, convenient and fast shower.

☞ Orientation of this design is high technology, humanization.

☞ High technology

- Large screen indication for water output temperature and output power information, easy to check working status.
- "German" Start with Nickel chrome..... electricity insulation technology, advanced technology in the world.

- 
- "Patent designed" Start with Nickel chrome..... heating can, nickel elements contained is 5 times higher than normal heating materials, much stronger for corrosion and lime scale protection, suitable in different water and area.

☞ Fast

- Low flow protection Heating will start only if water flow is higher than 2.8L/Min



## Attention

Warning label



Any place with this label, refers to appliance safety and human safety, operation must follow the requirement exactly, otherwise, appliance might be damaged or put user in danger

Please check ammeter's type and capacity, make sure it meets appliance's request.

380V Ammeter's type and capacity (A)		
Normal Meter	Smart Meter	Mechanical Meter
$\geq 5 / 60$	$\geq 10 / 80$	$\geq 5 / 60$



Please prepare independent power distribution for bathroom (depends on installation place of water heater), use special copper core between power supply and bathroom which complies with water heater's requirement

Power	Copper core section (mm <sup>2</sup> )
18 kW	$\geq 6$
21 kW	$\geq 6$
24 kW	$\geq 6$



Air switch used for water heater should meet with following specification

Power	Air switch (A)
18 kW	$\geq 32$
21 kW	$\geq 36$
24 kW	$\geq 40$

Important : Please Do Not Install a 3 Pin Plug and Socket connection, Provide an Air Circuit Breaker of suitable rating as mentioned above.



- Please exactly follow requirements and advises stated in this instruction sheet while installation and maintenance
- Please ask professional people's help when wire connection, ammeter or switch has problems.



Before wire connection, please connect water way first and test.



Please install on a firm wall surface.













Electric water heater must have good earth wire connection



Please reserve water inlet, outlet and water pipes base on position of installation.



## Attention

<p>Prohibited sign</p> 	<p>Any place with this label, is absolutely prohibited behavior, otherwise, appliance might be damaged or put user in danger.</p>	
<p>Do not use product when it is frozen, or suspect to be frozen, before use, product must be ice-out.</p> 	<p>Do not use product when shower head or hose is damaged.</p> 	
<p>Do not put your hand in direct contact with faucet's water outlet before starting, please confirm water output temperature before use.</p> 	<p>Please cut off power if water suddenly ceases to flow during use.</p>  	
<p>Do Not use Plug to connect power.... this product must be connected with special copper core from air switch. Air switch is not the direct switch of controlling water heater, please do not switch on/off frequently, to affect its sensitivity and cause danger.</p> 	<p>This product should not be installed outside the house. This product should not be installed at where does not have drainage.</p> 	
<p>This product should not be installed at where is suspected to be frozen.</p> 	<p>This product should not be installed at where might be splashed directly with water, please keep installation vertical to ensure sensitivity of flow switch</p> 	



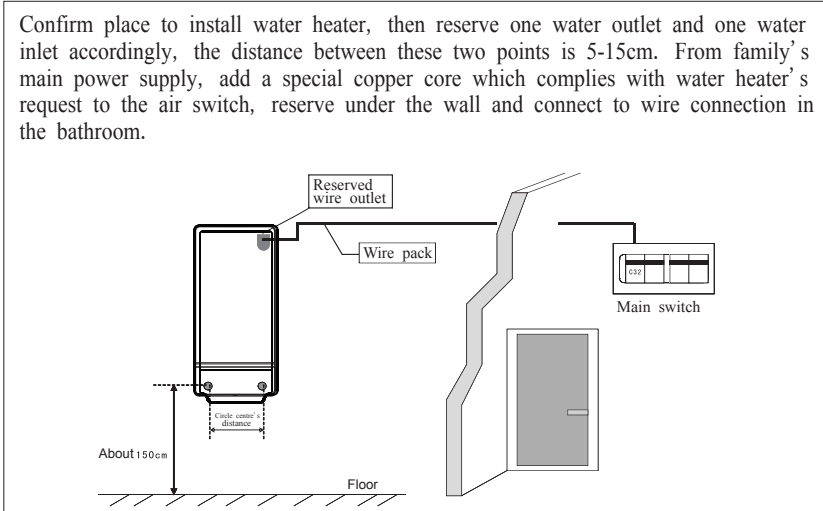
# Installation

## ● Water pipes and wire entry reservation before installation

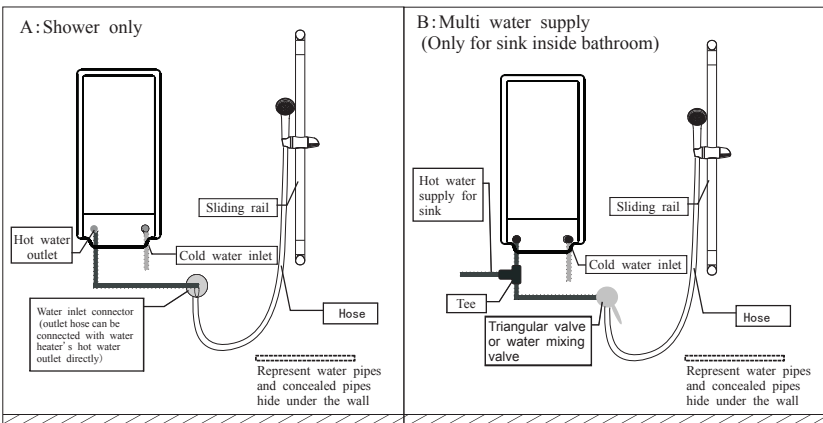
### Reserve water pipes

#### Pipe layout before bathroom decoration

Confirm place to install water heater, then reserve one water outlet and one water inlet accordingly, the distance between these two points is 5-15cm. From family's main power supply, add a special copper core which complies with water heater's request to the air switch, reserve under the wall and connect to wire connection in the bathroom.



### Water pipe reservation



# Installation

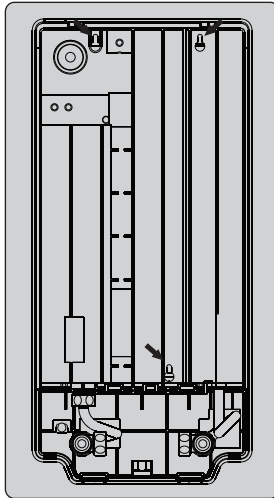
This product must be installed by installer assigned by our company's after sales service centre or sales department.

Choose proper place to put product on the wall, refer to the following steps:

## A Water pipe connection: (before wire connection)

- 1、 Remove front cover, then according to reserved water inlet and outlet's position, choose proper place to install water heater, and then fix it on the wall with screws (Refer to picture 2)

PIC 2



- 2、 Connect water heater to water inlet/outlet with nipple inner joints.
- 3、 According to connection requirement, decide if the piece at the front cover's bottom should be removed or not.
- 4、 Testing with water, make sure each connection is well connected and without any leaking, then connect light electricity plate and front cover.
- 5、 Choose proper place to install sliding rail and shower handset.

Attention: before connect with hot water outlet, please let cold water flows for 20 seconds to flash out impurities inside pipe, avoid blocking water heater.

For all water heaters which just be installed or haven't been used for a considerable period, before use, please check their water connection, make sure water flows out from shower head smoothly, then connect power and use.

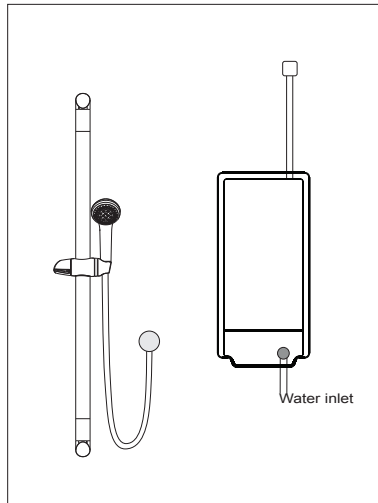
## B Wire connection: (after water pipe connection)

Connect family's Live 3 Phases and Earth to the corresponding wire in the product. Please do not connect Neutral to this Product. Make sure connection is fully tightened.

Attention:

Water heater cannot be connected by a normal plug, water heater must be connected with a disconnection incorporated in the fixed wiring, and water heater must be earth connected.

### After installation







## Function introduction

### 一、Function description

- ◇ On/off: Turn on or turn off the machine
- ◇ Flow testing function: through signal sent from water flow sensor, PCB plate tests if water flows into water heater, system only starts heating when flow rate is higher than 2.8L/Min.

- ❖ Power selection: four levels power selection, every push of “^” button to increase one level, every push of “v” button to decrease one level.
- ❖ Output temperature is constant, 3 seconds after turn on, hot water flows out, control precision is  $\pm 1^{\circ}\text{C}$ , within 20 seconds reach setting temperature. when voltage, inlet water temperature and flow rate change, output temperature fluctuation is within 8% of setting temperature.
- ❖ Under heating status, if temperature is higher than 80 degree, screen flash "E1" (once per 1 second). Product stops heating.
- ❖ Under heating status, push "M1" or "M2" can directly read previously saved specification under M1 or M2 and work accordingly, only save setting temperature.
- ❖ Factory setting is 36 degree, when user push this button, heating starts and heat to 36 degree, if user wants to change temperature during use, they can push temperature decrease and increase buttons, and adjustment range is 32~40 degree. If user would like to set temperature out of this range, they need to push Children mode button to exit this mode, then adjust.

	<p>Output temperature setting, default setting is 38 degree. Under power on status, next use will display last time's setting temperature.</p>
	<p>Actual flow rate: flow rate is tested by water flow sensor, L/MIN.</p>
	<p>Shower water capacity per each use, record water capacity since heating until stop, unit is "L" (liter), during this period, if heating stops for 5 minutes, then recording clear, otherwise including previous heating figure.</p>
	<p>Light belt display, orange color for temperature setting less than 42 degree, red color for temperature setting more than 42 degree.</p>

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# Operation manual

## 1、 Water connection

After installation, must let cold water flows to flash out impurities inside pipe, and make sure no leaking from each connection, then the product could be electrified. ◦

2、 Turn on the air switch ( only for the first use after installation), push knob button, screen will be illuminated and show working on status, now heating is permitted to start.

Remark: only if water low is higher than 2.8L/Min, heating can start.

## 3. Temperature setting

Constant output temperature, and default temperature is 38 degree. Push temperature “▼” button to decrease temperature by 0.5 degree each time until 30 degree; push temperature “▲” button to increase temperature by 0.5 degree each time until 60 degree.

Under constant power condition, next power on will indicate previous setting temperature before power off.

## 4. Memory function

Under heating status, directly push “M1”, “M2” button, system can read data stored, and screen displays “Memory 1”, “Memory 2” accordingly.

\*Store data: push “M1”, “M2” button for 3 seconds until screen flash “Memory 1”, “Memory 2”, then use temperature button to adjust setting temperature, after adjustment, push “M1”, “M2” button again to confirm setting, each successful setting will be reminded by buzzer.

\*Read data: under heating status, push “M1”, “M2” to operate shower under data stored, and screen displays “Memory 1”, “Memory 2” accordingly

## 5. Children mode

Factory setting is 36 degree, when user push this button, heating starts and heat to 36 degree, if user wants to change temperature during use, they can push temperature decrease and increase buttons, and adjustment range is 32~40 degree. If user would like to set temperature out of this range, they need to push Children mode button to exit this mode, then adjust.

## 6. Turn off

After showering, slightly push on/off button to stop.

## 7. Maintenance

When screen indicates “E1” and “🔧”, please stop heating and repair. ◦

When screen indicates “E2” and “🔧”, please stop heating and repair. ◦

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## External cleaning and equipment maintenance

- ✓ Before cleaning, power must be cut off, use wet cloth with neutral wash clean to wipe smoothly, do not use petrol or other liquor, after finish, use dry cloth to wipe again and keep the machine dry.
- ✓ When use shower handset, if water flow is blocked or not smooth, then use wash clean to clean lime scale inside.
- ✓ Shower handset should be cleaned regularly.
- ✓ Water heater's outlet can supply hot water to kitchen and washing machine through multi water supply system.
- ✓ Knob at the back of product is pressure relief valve, this should not be adjusted by users, if any problems, please ask professionals or our after sales service people to repair

## Fault Finding

Important information: please cut off power before check internal parts of water heater

Defects	Possible cause	Action
Water is too hot	<ul style="list-style-type: none"> <li>▪ Water flow rate is too low or cold water temperature is too high</li> <li>▪ High power setting</li> </ul>	<ul style="list-style-type: none"> <li>▪ Increase water flow</li> <li>▪ Decrease temperature</li> </ul>
Water is too cold	<ul style="list-style-type: none"> <li>▪ Water flow rate is too high or cold water temperature is too low</li> <li>▪ If water flow rate is too low, machine cannot be started</li> <li>▪ Unstable voltage or lower than voltage required by product</li> </ul>	<ul style="list-style-type: none"> <li>▪ Decrease water incoming flow or increase setting temperature</li> <li>▪ Check water supply, if water pressure needs to be increased, please turn off other water supply in the family, or add a pump to increase pressure.</li> <li>▪ Ask professionals to check voltage.</li> </ul>
Screen is not illuminated	<ul style="list-style-type: none"> <li>▪ Water heater is not turned on</li> <li>▪ Power supply problem</li> <li>▪ Water flow is lower than starting value</li> <li>▪ Internal parts broken or doesn't work</li> </ul>	<ul style="list-style-type: none"> <li>▪ Push on/off button to start system</li> <li>▪ Check power switch and wire</li> <li>▪ Check water supply, if water pressure needs to be increased, please turn off other water supply in the family, or add a pump to increase pressure.</li> <li>▪ Ask professionals to check voltage.</li> </ul>
Water flows without power	<ul style="list-style-type: none"> <li>▪ Air switch is off or wires are not well connected.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ask professionals to check air switch and wire connection</li> </ul>

If problem still cannot be solved,  
please contact on +91 8879864422. [www.ketko.in](http://www.ketko.in)

# Specification

Rated Pressure : 0.75 MPa

Water resistance:  $\geq 800 \Omega \cdot \text{cm}$

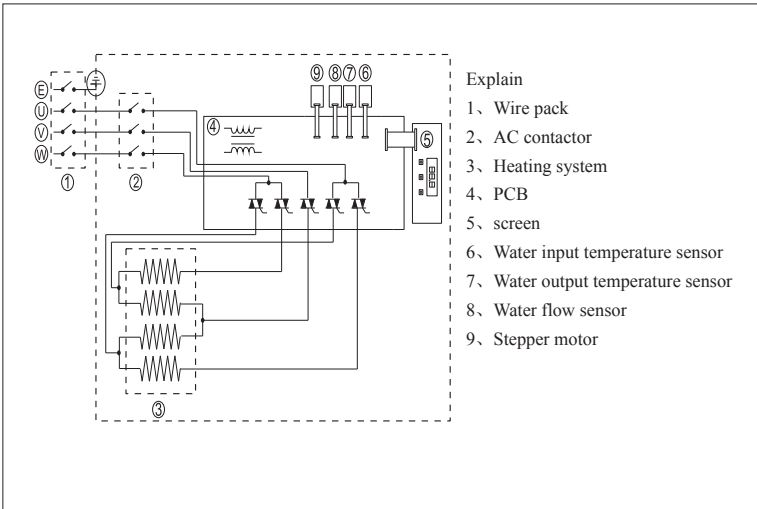
Minimum Flow rate: 2.8L/M in

Water Proof Level: IPX4

Minimum pressure rate:0.1MPa

Rated Power (kW)	Dimension (mm) (L*W*H)	Maximum current	Rated Voltage
24	470*230*90	40A	380V 3~ 50Hz

## ● Electric circuit





# CUSTOMER COPY

## WARRANTY CERTIFICATE

For registration of warranty 2 Years kindly follow the following steps:

1. Photo copy of purchase invoice
2. Photo copy of existing warranty certificate with serial number page
3. Original tear off attachment for warranty to be registered (completely filled with Dealer stamp)
4. Empty unused envelope with customer's self address and postage stamp

**WARRANTY: Once registered, the customer copy card will be posted back. On receipt of this card, customer has to intimate our service centre( Tel No. / email on back page)**

**Note:** This warranty is on spare parts and labour charges only and does not cover transportation expenses.

The customer has to courier the company copy (see overleaf) within 2 months of purchase to avail of warranty

Please inform the company after installation before use to verify correct installation and demo. Warranty void if this is not done and company is not responsible for any consequential loss or damage.

Please do not use CPVC pipes for internal and external connection at both the Hot and Cold water lines and the company is not responsible for pipes, tiles and any other damage connected to this unit.

**Terms and Conditions : Inner Tank Warranty Related Important Information.**

The Product warranty is for 2 Years and the Tank Warranty is for Lifetime (1Litre Eva *pulse*) and 7 years (3Litre Eva *pulse*) Models, subject to the Terms and Conditions as follows.

- 1) Installation must be appropriate as mentioned in the Instruction Manual and Warranty Card and by an Authorized Person Only after taking into consideration the site conditions.
- 2) Within the 2 Year warranty period, if the product malfunctions or stops working due to above point no:1 not being implemented then the spare parts as well as labour charges are applicable at actuals and will not be covered under warranty.
- 3) In case of manufacturing defect of the Tank, that is even though the Warranty is for Lifetime (1L) and 7 years (3L) Models, the tanks will be replaced as free parts only but the Labour Charges will be applicable for changing of this tank after the 2 years product warranty.

Customer has to send this completed page to the company within 2 months of purchase



# CUSTOMER COPY

## WARRANTY CERTIFICATE

This is not valid without dealer stamp and invoice copy

Customer Name: .....

Address: .....

.....

.....

.....

Tel : ..... Mobile No:.....

Email : .....

**Invoice No:**

**Invoice Date:**

**Serial No:**

**Dealer Stamp**

**Product Details**

Customer has to send this completed page to the company within 2 months of purchase



# COMPANY COPY

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Customer Name: .....

Address: .....

.....

.....

.....

Tel : ..... Mobile No:.....

Email : .....

**Invoice No:**

**Invoice Date:**

**Serial No:**

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**Dealer Stamp**

**Product Details**

Customer has to send this completed page to the company within 2 months of purchase



# KETKO Model : CWM-DF24A WARRANTY

**Additional charges on extended warranty above 2 Years for entire product. Please contact on +91 8879864422. [www.ketko.in](http://www.ketko.in)**

## TERMS AND CONDITIONS

**This KETKO product is warranted for a period of Two Years from the date of purchase, subject to the following conditions:**

- The warranty is only against manufacturing defects.
- The warranty does not cover breakage or damage to bakelite / plastics / rubber / porcelain / glass parts, indicator lamp, supply cord, plating chipping or peeling, enamel, coating and denting of any appliance once delivered.
- The warranty also does not apply to normal wear and tear of parts damages resulting from misuse, accident, negligence or mishandling on the part of the customer, or due to voltage fluctuations. The warranty does not cover and the company shall not be liable for any consequential loss or damage
- The warranty also does not apply if the appliance is not installed and maintained properly or is opened or handled by anyone other than our authorized service personnel. Subject to the above, the unit will be repaired free of cost provided the unit is returned at customer's cost to the nearest office / service centre of our marketing agency / dealer, along with this warranty card.
- This card should be completed, signed and stamped by the dealer from whom the appliance has been purchased, and accompanied by the signed Tax Invoice of the dealer.

SINCE 1941

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**ELECTRIC | GAS | SOLAR**

— WATER HEATERS —



## Ketko San Pvt. Ltd.

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Customer Care No.: +91 22 43447455/56

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### Mumbai Service Center

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