



## KENT WATER FOUNTAIN

Chiller-cum-inbuilt  
RO Water Purifier



### Instruction Handbook for Installation, Operation and Maintenance.



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**Mineral RO™ TECHNOLOGY**  
Removes Dissolved Impurities  
Retains Essential Minerals  
Multiple Purification  
**RO + UF + TDS Control**

*Kent Deta Hai*  
**Sabse  
Shudh Paani**

Reverse Osmosis Water Purifier with UF Sterilisation & TDS Controller

Mineral RO © 2005 KENT RO SYSTEMS LTD, the process & purifier is patented vide patent no. 199716.



## Welcome to KENT

Dear Customer,

Welcome to the world of KENT, the leading brand in water purification industry of India. With a KENT product you have all the reasons to smile, as at KENT we take pride in the quality and laboratory-tested performance of our products. Backed by cutting edge technology, each KENT product provides solution for attaining purity in the most convenient manner.

We are confident that your decision to own KENT Water Fountain Cum In-built RO Water Purifier will go a long way in serving you with purer and mineral enriched drinking water, thus keeping you and your family in good health. We assure that you will be satisfied with its trouble-free performance and quality without any compromise.

This manual is an effort towards acquainting you with operation and maintenance of KENT Water Fountain Chiller-cum-inbuilt RO Water Purifier. Read this manual carefully prior to using the product for easy operation of the system and retain it for future reference. To enjoy the benefits of warranty, fill up the enclosed warranty card and send the installation report within 15 days of purchase. For further assistance, feel free to contact your nearest KENT dealer or branch.

Best Wishes

KENT RO SYSTEMS LTD.

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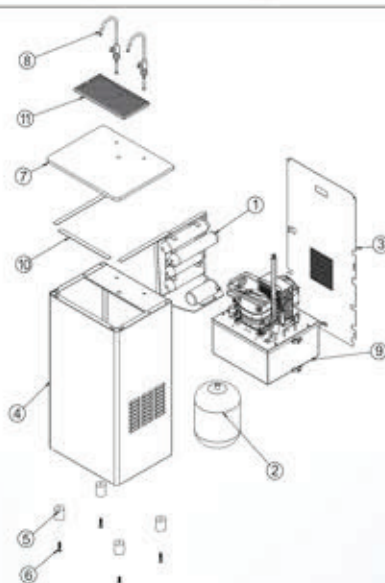
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## KENT Technology- A Breakthrough in Water Purification

Presenting the KENT Water Fountain chiller-cum-inbuilt RO Water Purifier. It uses state-of-the-art technology to provide purer & healthier drinking water. The heart of KENT Water Fountain is a RO membrane having capillaries as small as 0.0001 microns which reduces dissolved impurities (salts and heavy metals) as well as harmful micro-biological impurities (bacteria, viruses etc.) and also converts hard water to sweet and purer drinking water. It also incorporates a UF membrane which further ensures reduction of harmful micro-organisms. KENT Water Fountain also allows the user to control Total Dissolved Solids (TDS) level of purified water. Along with hundred percent purified water, KENT Water Fountain provides you access to normal as well as cold filtered water.

| Item No. | Name                        |
|----------|-----------------------------|
| 1        | RO SYSTEM ASSEMBLY          |
| 2        | HYDROSTATIC TANK ASSEMBLY   |
| 3        | REAR COVER                  |
| 4        | C FRAME                     |
| 5        | LEG FOUNTAIN                |
| 6        | M6 X 45 SCREW               |
| 7        | GRANITE                     |
| 8        | FAUCET                      |
| 9        | REFRIGERATION DECK ASSEMBLY |
| 10       | VHB TAPE                    |
| 11       | DRIP TRAY ASSY              |



### Salient Features of KENT Water Fountain

KENT proudly presents KENT Water Fountain chiller-cum-inbuilt RO Water Purifier – an advanced purer water dispenser based on a cutting edge technology which broadly comprises of RO+UF+TDS control systems, thus taking total care of your health and well-being. It has following features:

- **Multi-functional:** Supplies normal and cold water to fulfil your diversified needs i.e. making ice tea, cold beverages etc. It is a multi-functional machine for homes, offices, showrooms, institutions, hotels etc.
- **3-Stage Water Purification:** KENT Water Fountain incorporates three stage water purification to ensure purer water. Moreover, it is ideal for municipal, corporation water supply.
- **Ease of Access:** KENT Water Fountain with inbuilt RO Purifier provides you an ease of connection to direct water supply, thus discarding need of mounting a bottle on the dispenser
- **Trouble-free Performance:** KENT Water Fountain

is easy to maintain and service. It has been rigorously tested under stringent conditions to ensure trouble-free service for years

- **Inline Cooling System:** KENT Water Fountain uses the Next-Gen technology of Inline Water Cooling system with Ice Bath that gives you chilled water instantly on demand, free from

contamination as the purified water is contained in sealed hydro static tank and does not come in contact of air during cooling.

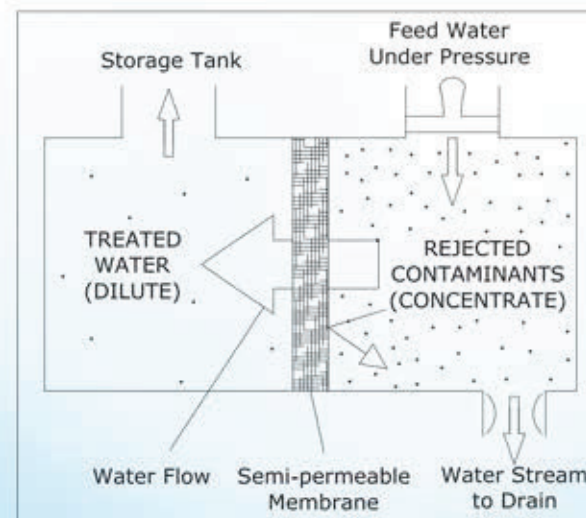
- **Stainless Steel Body:** KENT Water Fountain is made of a solid stainless steel body that along with the black granite top gives the design a chic edge.

### Items in the Box

|                                 |         |
|---------------------------------|---------|
| 1. 3-Way Connector              | : 1 No. |
| 2. S.S. Ball Valve              | : 1 No. |
| 3. Food Grade Pipe 3/8" (White) | : 1 No. |
| 4. Food Grade Pipe 3/8" (Blue)  | : 2 No. |
| 5. Faucet                       | : 2 Set |
| 5. Warranty Card                | : 1 No. |
| 6. Power Cord                   | : 1 No. |

### Reverse Osmosis Process

Reverse Osmosis, also known as hyper filtration, is one of the finest purification process known so far. It is a technique for purifying the water where pressure is applied to force liquid through a semi-permeable membrane as in the opposite direction of normal osmosis. This process reduces salts from potable or brackish water. When pressure is applied, purer water gets squeezed through the membrane from the concentrated side to the diluted side. Salts dissolved in water behave as charged ions and are repelled by the RO membrane. The rejected impurities on the concentrated side of the membrane are washed away by a stream of water, thus not accumulating, as they do in a traditional filter.



## Ultrafiltration Process

Ultrafiltration is a technique for separating dissolved molecules in water on the basis of size which means that molecules larger than the membrane pore size rating will be retained at the surface of the membrane. It is a separation process that uses membrane with pore size of 0.01microns. UF membranes reduce high molecular weight substances, colloidal materials, organic and inorganic polymeric molecules along-with bacteria. Low applied pressures are therefore sufficient to achieve high flux rates from an ultrafiltration membrane.

## Auto-flushing System

The purpose of the Auto Flushing system is to help prevent scaling or fouling of the RO membrane by providing a rapid rinse which washes away impurities from the membrane's surface and keeps the membrane clean. It also offers the following benefits:

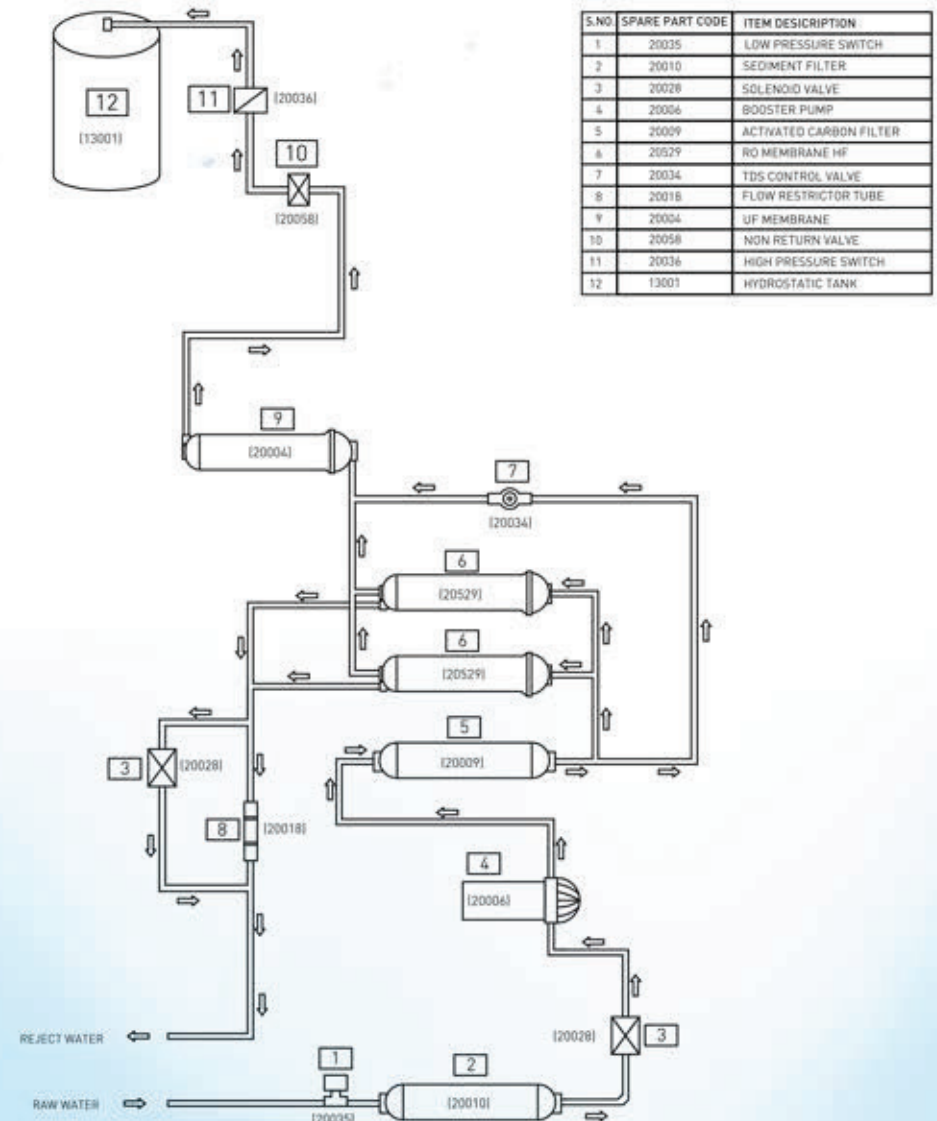
- Lowers reject water outflow
- Improves "TDS" rejection rate i.e. increases RO membrane efficiency
- Extends life of RO membrane.

## Refrigeration Process

1. 3-Stage Water Purification: KENT Water Fountain Cum in-built RO Water Purifier incorporates three stage water purification to ensure purer water. Moreover, it is ideal for municipal, corporation water supply.

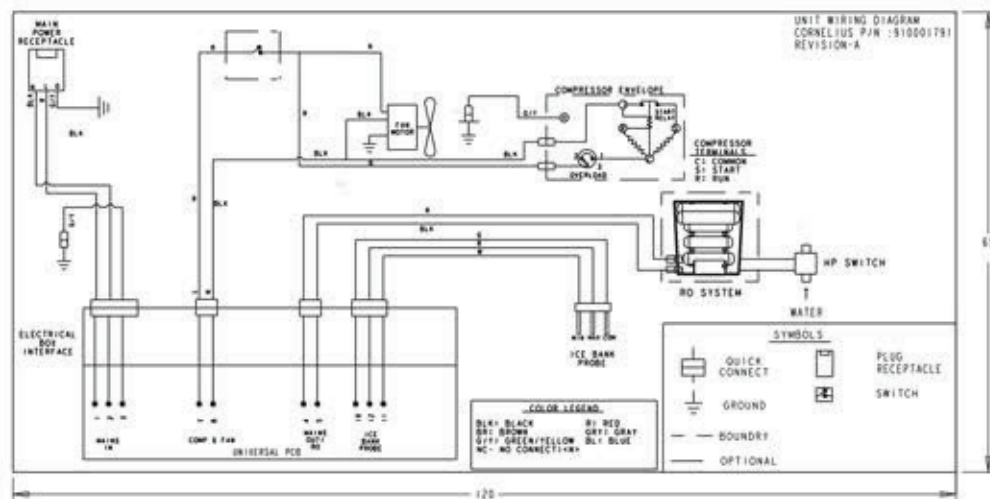
2. Inline Cooling System: KENT Water Fountain uses the Next-Gen technology of Inline Water Cooling system with Ice Bath that gives you chilled water instantly on demand, free from contamination as the purified water is contained in sealed hydro static tank and does not come in contact of air during cooling.

## Water Flow Diagram





## Electrical Circuit Diagram



## Automatic Operation

- Automatically shuts off water purification process when the hydrostatic tank is full
- Does not start water purification process when the inlet water supply pressure is below 0.3kg/cm<sup>2</sup>
- Restarts water purification process when the water level drops in the hydrostatic tank
- Stops water purification process in the absence of electricity, thus ensuring that a user gets only purified water
- Resumes water purification process once the electrical supply is available

## TDS Adjustment\*

The unique TDS control system enables customers to retain natural minerals in the purified water as per the requirement.

- To increase the TDS level (mineral contents), turn the screw of the valve anticlockwise
- To decrease the TDS level (mineral contents), turn the screw of the valve clockwise

\* Tested & Certified by TUV-SUD South Asia (P) Ltd.

## Installation Instructions

- Unpack machine and place the unit on a level ground with close access to water, drain and electrical connection



- Fix the S.S. ball valve to the 1/4 inch port of the 3-way connector as shown in the figure.



- Connect the 3-way connector to the raw water supply as shown in the figure. The threaded end of the 3-way connector is fitted in line with the raw water supply. The other end can be connected to a tap or can be plugged off if not required.

- Now connect one end of the white pipe to the S.S. ball valve and other end to the Water Fountain at the connector labelled as water in. (Note: White pipe is for raw water supply)



- Remove the rear panel by removing 6 screw.



- Remove the foam provided on top of the hydrostatic tank.



- Remove plugs provided on top of Faucet opening.



8. Insert faucet pipe.

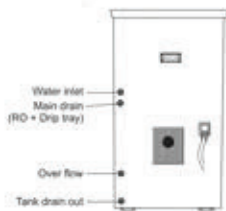


9. At the bottom of the unit on the refrigeration deck, remove the red colour cap with water filling indication. Fill water to the water bath until water starts coming out of the overflow port.



10. Reinstall the cap on the water bath and close the rear panel.

11. Provide raw water supply to the unit through 3/8" White pipe to opening labeled as Water Inlet



12. Connect the 3/8" White pipe to both the outlets labeled as 'Drain' for water drainage Water Inlet.

Note: The drain end of the pipe needs to be at a level below the unit.



13. Block the water bath drain located at the lower most position with the dead plug provided with the unit. (Pre-Installed)

14. Plug in the Power cord sent along with the unit. Make sure 220 V 50 Hz supply is provided.

15. Switch on the unit and let it run for a minimum of 4 hours or until the compressor switches off.

16. Unit is ready to dispense water

Note: The maximum distance between the water source and the purifier should not be more than 3 meters.

## Maintenance

- Ensure to keep at least 15 cm of distance between the device & wall
- Keep the unit away from direct sunlight and rain
- Unplug the machine and drain out the water by opening the faucet if unused for a long period of time
- This appliance is not intended for use for persons 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

Replacement of spare parts are as under:-

|        |    |                               |
|--------|----|-------------------------------|
| -20010 | SP | Inline Sediment Filter 8"     |
| -20009 | SP | Inline Carbon Block Filter 8" |
| -20531 | SP | RO Membrane SHF               |
| -20004 | SP | Welded UF Membrane 8"         |
| -20018 | SP | FRT 550/600                   |

Note: Filters and membrane are consumables. Their replacement time is dependent on the quality of raw water and water consumption. They are not covered under the warranty. However, if a filter chokes within six months and a membrane within a year, it will be cleaned/repared/replaced free of cost. Changing the filters and system inspection is available on call. The treatment capacity of RO membrane will reduce with time due to logging of pores of membranes.

"This reverse osmosis system contains a replaceable component critical to the efficiency of the purifiers. Replacement of the reverse osmosis component should be with one of identical specifications as defined by the manufacturer, to ensure the same efficiency and contaminant reduction performance."

## Caution

- Make sure that the Water Fountain is connected to normal water supply only
- Make sure that the reject water pipe is not placed at a level higher from the Water Fountain otherwise reject water may flow backwards into the purifier
- The maximum distance between the water source and the Water Fountain should not be more than 3 meters
- In case of not using the Water Fountain for many days, kindly switch off the power supply and drain the storage tank
- Do not try to service the Water Fountain on your own. Instead call service technician for help
- If the supply cord is damaged, it must be replaced by the manufacture, it's service agent or similarly qualified person in order to avoid hazard



## Troubleshooting

| Problem                             | Possible cause                  | Possible solution                   |
|-------------------------------------|---------------------------------|-------------------------------------|
| No water Output from water fountain | No inlet water supply           | Check inlet water supply            |
|                                     | SS ball valve closed            | Open the SS ball Valve              |
| No cooling from water fountain      | Power cord not plugged properly | Plug the unit firmly                |
|                                     | Power cord Damaged              | Replace the power cord              |
|                                     | Compressor not start            | Call KENT Authorised Service Center |
| Water Over Flow from Drip Tray      | Drip tray drain hole blocked    | Remove the Blockage                 |
|                                     | Drain Pipe are bend             | Remove the Bend from Drain Pipe     |
|                                     | Drain Pipe not at ground level  | Place the drain pipe correctly      |

## Technical Specifications

| PRODUCT                     | KENT Water Fountain Chiller-cum-inbuilt RO Water Purifier   |
|-----------------------------|---|
| Product Code                | 111071  |
| Product Generic Name        | Water Fountain  |
| Product Colour              | Natural   |
| Applications                | Suitable for Brackish/Tap Water   |
| Purification Capacity       | Up to 40 L/hr.*   |
| Body Material               | Stainless Steel / ABS Food Grade Plastics   |
| Installation                | Floor Standing  |
| Product Dimensions (mm)     | 520 (L) X 420 (W) X 1296 (H) with faucet  |
| Inlet Water Pressure (Min.) | 0.3 kg/cm <sup>2</sup>  |
| Inlet Water Pressure (Max.) | 4 kg/cm <sup>2</sup>  |
| Filter Cartridge            | Sediment, Carbon Filter   |
| UF Filter                   | Ultrafiltration Membrane  |
| Auto Flushing System        | Yes   |
| Storage Capacity            | 7L  |
| Membrane Type               | Thin Film Composite RO  |
| Booster Pump Voltage        | 24VDC   |
| Cooling Capacity            | 30 L/hr   |
| Refrigerant                 | R134a   |
| Refrigerant Mass            | 130 g   |
| Cooling Type                | Inline cooling (No tank for cooling)  |
| Condenser Fan               | Axial Flow Type   |
| No. of Nozzle               | 2 Nos.  |
| Drink size                  | 1000 ml / 2 min.  |
| Weight                      | 62.5 kg   |
| Input Power Supply          | 230 V AC, 50 Hz  |
| IP Rating                   | IPX1  |

\* Treatment capacity tested for tap water having TDS level of 750 ppm at room temperature.

\*Do not use with water that is microbiologically unsafe or of unknown quality w/o adequate disinfection before or after the system.

\*Efficiency rating means the percentage of the influent water that is available to the user as reverse osmosis treated water under operating condition that approximate typical daily usage."

\*Cold water temperature: 14-19°C

\*Under standard testing condition (inlet water temperature 25°C ambient temperature 25°C @ 30 L/hr.