



Innovations for
Better Living

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E-mail: service@kent.co.in or visit us at www.kent.co.in

KENT ELITE 2+

ONLINE PURIFICATION FOR WATER COOLERS

KENT
Mineral RO™
Water Purifiers
HOUSE of PURITY

Instruction Handbook
for Installation, Operation
and Maintenance.



Kent Deta Hai
Sabse
Shudh Paani

Reverse Osmosis Water Purifier with UV Sterilization & TDS Controller
Mineral RO © 2005 - 2019 KENT RO SYSTEMS LTD, the process & purifier is patented vide patent no. 199716.



Mineral RO™ TECHNOLOGY
Removes Dissolved Impurities
Retains Essential Minerals
Multiple Purification

RO + UV + UF + TDS Control

Welcome to KENT

Dear Customer

Welcome to the world of KENT, leader of water purification industry in India. With a KENT product you have all the reasons to smile, since at KENT we take pride in the quality and laboratory-tested performance of our products.

We are confident that your decision to own KENT Elite 2+ water purifier will go a long way in serving you with purer and mineral enriched drinking water - thus keeping you and your family healthier. We assure you, that you will be satisfied with its trouble-free performance and quality which comes without any compromise.

This manual is an effort towards familiarising you with the operation and maintenance of KENT Elite 2+. Before operating the unit, please read it thoroughly and retain it for future reference. To ensure that the warranty of your water purifier is effective, fill up the enclosed warranty card and send the installation report within 15 days of purchase. Should you need further assistance, do not hesitate to contact your nearest KENT dealer or branch.

Best Wishes,

KENT RO SYSTEMS LTD.

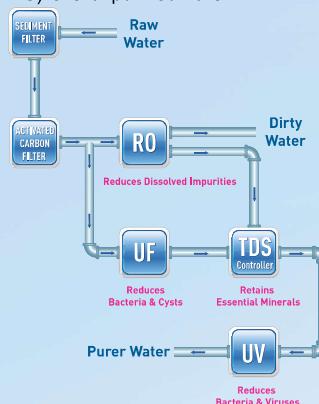
Table of Contents

1. KENT Technology - A Breakthrough in Water Purification	1
2. Salient Features of KENT Elite 2+	1
3. Items in the Box	1
4. Important Instructions	2
5. Reverse Osmosis Process	3
6. UF Process	3
7. UV Process	3
8. UV Fail Alarm	4
9. Filter Change Alarm	4
10. Computer Controlled Operation	4
11. Auto-flushing System	4
12. Water Flow Diagram	5
13. Electrical Circuit Diagram	5
14. Automatic Operation	6
15. Installation Instructions	6
16. TDS Adjustment	7
17. Starting-up the Purifier	8
18. Recommended Usage of Rejected Water	8
19. Maintenance	8
20. Recommended Frequency for Filters / Membrane Change	9
21. Technical Specifications	9

KENT Technology - A Breakthrough in Water Purification

Presenting the KENT Elite 2+ Water Purifier; it uses futuristic and state-of-the-art technology to provide purer & healthier drinking water.

The heart of KENT Elite 2+ Water Purifier is a Reverse Osmosis membrane having capillaries as small as 0.0001 microns that reduces dissolved impurities (salts and heavy metals) and converts hard water to sweet and purer drinking water. KENT Elite 2+ Water Purifier also allows user to control Total Dissolved Solids (TDS) level of purified water.



Salient Features of KENT Elite 2+

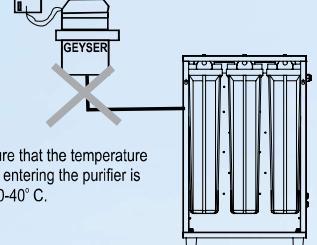
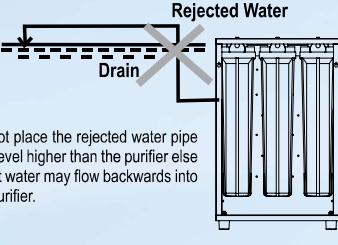
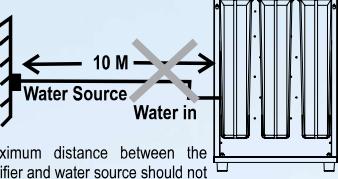
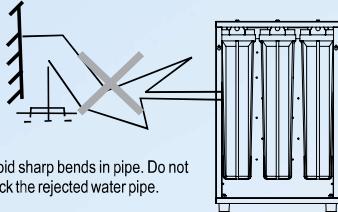
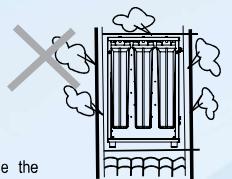
- Suitable for attachment to water coolers
- Double Purification by RO and UV/UF effectively filters out bacteria, viruses and cysts
- Adjustable TDS Control System facilitates TDS adjustment in purified water
- Auto-flushing System to help prevent scaling or fouling of the RO
- Fully automatic operation with auto-on and auto-off facility
- Tamper-proof RO/UF Membrane fused inside membrane housing
- Push-fit components for leak-proof & maintenance-free performance
- Vertically mounted SMPS for over voltage protection
- Stainless steel construction for corrosion-free lifespan
- Suitable for purification of Brackish/Tap Water/Municipal Corporation Water Supply
- Filter change alarm to indicate filter replacement time
- Super high flow membrane
- High capacity of 100 L/hr.*

Items in the Box

1. KENT Elite 2+ Water Purifier	:	01 No.
2. S.S. Ball Valve	:	01 No.
3. 3-Way Connector	:	01 No.
4. Pipe (White & Blue 1/4 inch)	:	2.5 meters each
5. Pipe (White 3/8 inch)	:	2.5 meters
6. Cooler fitting	:	01 No.
7. Union Connector	:	01 No.
8. Instruction Manual	:	01 No.

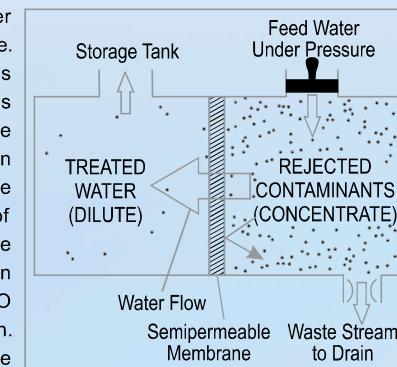
* Treatment capacity tested for tap water having TDS level of 750 ppm at room temperature

Important Instructions

 <p>Avoid exposure to direct sunlight and installation in damp areas.</p>	 <p>Make sure that the temperature of water entering the purifier is within 10-40° C.</p>
 <p>Do not place the rejected water pipe at a level higher than the purifier else reject water may flow backwards into the purifier.</p>	 <p>Maximum distance between the purifier and water source should not be more than 3 meters.</p>
 <p>Avoid sharp bends in pipe. Do not block the rejected water pipe.</p>	 <p>Do not confine the purifier in a cabinet.</p>
 <p>Use Genuine KENT Spare Parts for optimum performance</p>	<p>Do not try to service the purifier on your own. Instead, call the service technician for help.</p>

Reverse Osmosis Process

Reverse Osmosis process, also known as Hyper Filtration, is the finest filtration process known till date. The process ensures reduction of the particles as small as ions from a solution. Reverse Osmosis process uses a semi-permeable membrane to reduce dissolved salts from potable / brackish water. In Reverse Osmosis, water pressure is applied to the inlet impure water resulting into the squeezing of purer water from concentrated end of membrane towards the diluted end. Dissolved salts present in water as charged ions get repelled by the RO membrane and are not allowed to pass through. Similarly, bacteria and germs are also blocked by the ultra fine pores of RO membrane. These rejected impurities suspended on the concentrated end of membrane are washed away in a stream of waste water, preventing the membrane from clogging.



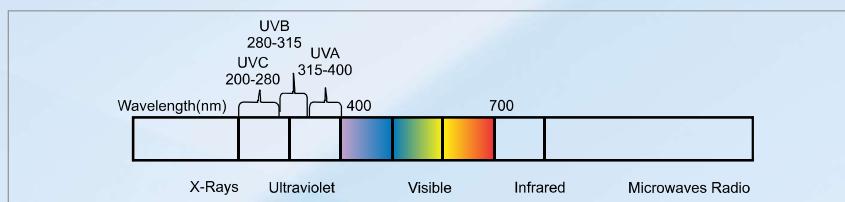
UF Process

KENT Ultra-Filtration is a separation process that uses UF membrane with pore size of 0.1–0.01 micron. This UF membrane has the capacity to remove colloidal materials including bacteria, cysts and even viruses from drinking water. Low applied pressure is therefore sufficient to achieve high flux rates from an Ultra Filtration membrane.

UV Process

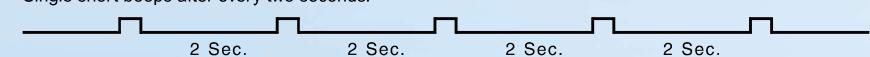
The ultra-violet (UV) light has shorter wavelength (higher energy) than visible light. It is called ultra-violet because it is just beyond violet light in the light spectrum. Technically, ultra-violet light is defined to be any wavelength of light, which is shorter than 400 nanometer.

UV rays, which penetrate into micro-organisms, are absorbed by the DNA of pathogen, in the water. The DNA is altered in such a way that the pathogen cannot reproduce itself. Thus, it is essentially killed and cannot cause infection. This process of DNA modification is called inactivation.



UV Fail Alarm

KENT Elite 2+ Water Purifier has an in-built feature that sounds an audible alarm if the UV lamp malfunctions. This feature is provided to ensure purity. This UV Fail Alarm will sound as follows:

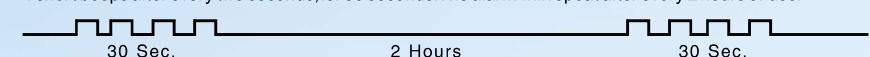


In case such an alarm is audible, kindly switch off the purifier and call the service technician for help. The purifier will stop its purification process in such a circumstance.

Filter Change Alarm

KENT Elite 2+ Water Purifier has an in-built feature that sounds an audible alarm to indicate replacement time for filters. This alarm will be audible after 700 hrs of use since the last filter change (or since the time of installation). The Filter Change Alarm will sound as follows:

4 short beeps after every two seconds; for 30 seconds. The alarm will repeat after every 2 hours of use.



In case such an alarm is audible, please call the service technician and request him to change the filters of the purifier. However, if the filters are not changed within the next 60 hours of operation, the purifier will stop functioning to ensure purity and hygiene. The following alarm will be audible after 60 Hrs. A continuous beep for an infinite time.

In case, such an alarm is audible, kindly switch off the purifier and call the service technician to replace the filters. In such a circumstance, the purifier will not function unless the filters are changed.

Computer Controlled Operation

To ensure delivery of purer and healthier water, a micro-processor is installed in the purifier that performs the following functions:

UV Stabilization Delay: To ensure that the UV lamp is pre-heated and is working at its optimum level before it starts disinfecting water, the controller provides a two seconds delay to UV lamp when the purifier is switched on. During this period, only the UV lamp is switched on and other electrical devices of the purifier are switched off.

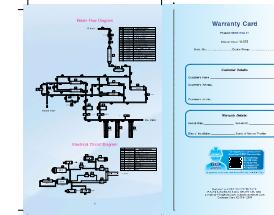
Purification Delay: To ensure that the idle water lying in the internal pipes and in the UV chamber is disinfected before being passed into the storage tank, the system provides 5 second delay when the purifier is switched on. During this time, the UV lamp kills all micro-organisms that may be in the water inside UV chamber. After this delay, all other electrical devices such as booster pump and solenoid valve are switched on to start normal purification process.

Audible Alarm: The controller also controls the timing of UV Fail Alarm and the Filter Change Alarm.

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 offers following benefits.

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



Terms & Conditions of Warranty

KENT Purifiers warrant all new products manufactured by it to be free from defects in material and workmanship under normal usage and service from the date of installation as under:

1. The Warranty period commences from the date of installation by the first end-user. During this Warranty period of one year, KENT Purifiers or its Authorised Service Provider (ASP) will replace or repair any part of KENT Purifiers, that in the opinion of KENT Purifiers or its ASP, would be defective in operation due to faulty material or workmanship (i.e. manufacturing defects) with the exception of consumables such as Sediment Filter, Carbon Filter and RO/UF Membrane. However, if the RO/UF Membrane gets clogged within first one year and/or if the filters get clogged within first six months, they shall be cleaned / repaired / replaced at no extra charge.
2. The product's plastic body is not covered under Warranty and hence, it must be handled with care to guard against breakage.
3. The original purchaser of the unit can avail services under Warranty at the point of sale, by producing the damaged part(s) along with the original invoice.
4. This Warranty is void if the unit is not operated under normal municipal water or well water conditions or is subjected to the temperature above 40°C.
5. Product returned to KENT Purifiers or its ASP for Warranty examination must be shipped freight prepaid.
6. KENT Purifiers or its ASP shall not be held liable for claims exceeding the cost of repair of the defects in workmanship.
7. This Warranty Agreement shall not be interpreted to render KENT Purifiers or its ASP liable for injuries or damages of any kind - direct, consequential or contingent to persons or property.
8. KENT Purifiers or its ASP shall not be held responsible by representative or buyer for failure to abide by any of the obligations of this Warranty Agreement if such failures are the result of circumstances of Forces Majeures: such as, but not limited to, floods, earthquakes, transportation strikes, labour disputes with outside suppliers or any other conditions beyond the control of KENT Purifiers or its ASP.
9. KENT Purifiers or its ASP shall not be held liable for repair or alterations made without prior written approval; for products clogged by suspended matter, precipitates or biological growth; or for failures resulting from the lack of proper maintenance.
10. KENT Purifiers or its ASP cannot and shall not be held liable for any sickness or illness due to the consumption of drinking water from any water purifier supplied by KENT Purifiers, since KENT Purifiers or its ASP does not have any control over the maintenance and usage of water purifier.
11. This Warranty Agreement excludes all products/component parts or damage to any part of this water purifier which, in the opinion of KENT Purifiers or its ASP, have been subjected to misuse; misapplication; negligence; alteration; accident or operation contrary to our instructions, incompatibility with accessories not installed by KENT Purifiers or its ASP, or that have been repaired with component parts other than those manufactured by or obtained from KENT Purifiers or its ASP. Damage caused by freezing, flood, fire or Act of God is not covered by this Warranty. In all such cases regular charges will apply. This limited Warranty does not include service to diagnose a claimed malfunction in this unit.
12. KENT Purifiers reserves the right to alter or improve design and specifications at any time, without any contingent obligations to prospective buyers or owners of the products previously sold.
13. Any disagreements and obligations based upon the purchase of KENT Purifiers products and thereby imposed on KENT Purifiers or its ASP shall be governed by and construed according to the laws of INDIA and subject to the jurisdiction of Delhi Courts only.
14. KENT Purifiers or its ASP assumes no Warranty liability in connection with this water purifier other than that specified herein. This Warranty is in lieu of all other warranties, expressed or implied, including warranties of fitness for a particular purpose. KENT Purifiers or its ASP does not authorize any person or representative to assume for them any other obligations on the sale of this water purifier.
15. Under no circumstances, the liability of KENT Purifiers or its ASP shall exceed the value of the product.
16. Under no circumstances are the terms mentioned above negotiable and no employee of KENT Purifiers or its ASP has the authority to supersede them.

Affix
Stamp
here

To,

KENT RO SYSTEMS LTD.
E-6, 7 & 8, Sector-59, Noida, U.P.-201 309, India.
Ph.: 92-789-12345
E-mail: service@kent.co.in | Website: www.kent.co.in

Installation Report

Product : **KENT** Elite 2+
WATER PURIFIER

Invoice No. _____

Serial No. _____

Invoice Date _____

Customer's Name _____

Installation Date _____

Customer's Address _____

Service Provider's Name: _____

Customer's Ph. _____

Service Provider's Ph. _____

TDS of Purified Water _____

TDS of Raw Water _____

Customer's Signature _____

Service Provider's Stamp _____

Automatic Operation

- The purifier automatically shuts off when the tank is full
- The purifier does not start when inlet water supply pressure falls below 0.3kg/cm²
- The purifier automatically restarts when the water level drops below the maximum level
- The purifier does not allow any water rejection in absence of electricity or when tank is full
- The purifier automatically flushes & cleans the RO membrane on periodic intervals

Installation Instructions

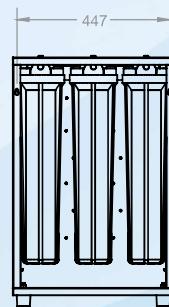
KENT Elite 2+ is designed to facilitate wall mounting as well as floor standing purification. It is easy and convenient to install.

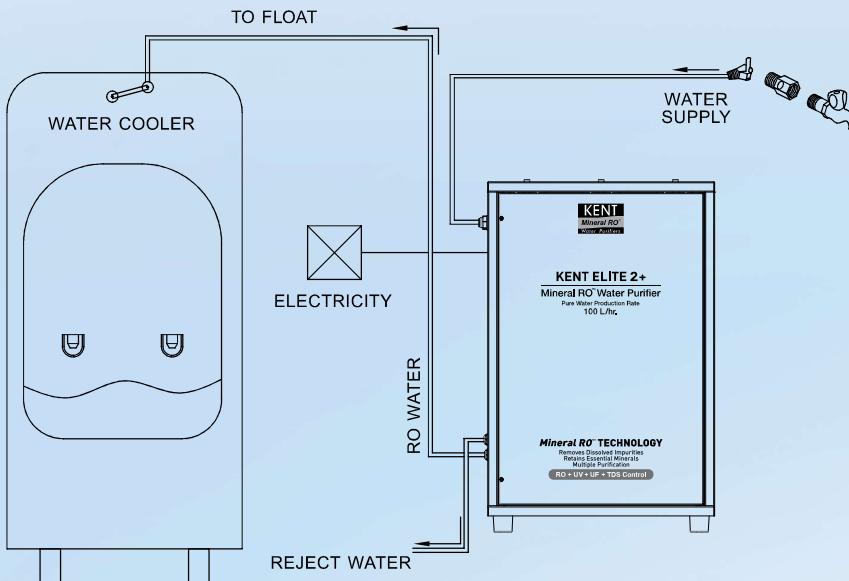
Recommended Site Preparations:

- Single Phase 100 - 250 V AC, 50/60 Hz. connection not more than 3m away from the point of installation of purifier
- Raw water supply with ½ inch nipple not more than 3m away
- Drain for reject water not more than 3m away
- Installation space as per the dimensions of the purifier
- For proper installation make sure that the purifier is mounted on a wall surface. Avoid installation on wooden and metallic stands
- For optimum inlet pressure, source water tank should be at least 10 ft above the purifier installed
- The system and installation must comply with state and local laws and regulations

Installation Procedure:

1. Fasten the SS ball valve to raw water supply.
2. Now connect one end of white pipe to SS ball valve and the other end to 3/8" Bulk head fitting connector labeled as WATER IN.
-  Use white pipe for raw water supply
3. Connect one end of blue pipe to 1/4" Bulk head fitting connector labeled as REJECT WATER and lead the other end to drain.
-  Use blue pipe for reject water
4. Connect the purified water pipe to water cooler.
5. Turn on the lever given on SS ball valve to initiate the water flow to purifier.
6. Allow the filters to pre-soak in water for 2-3 minutes.
7. Connect the power supply.
8. Installation is complete.





When the water cooler's storage tank gets filled up completely the float in the cooler will cut off the RO purified water supply from KENT Elite 2+. This will further create a water pressure. In turn the high pressure sensor installed in the machine will cut off the electric supply to the machine. The purification of KENT Elite 2+ will automatically start again as soon as the water level drops.

TDS Adjustment

The unique TDS Controller enables customers to retain the contents of natural minerals in purified water, as per their requirement.

- Turning the screw of the valve anti-clockwise, results in an increased mineral content.
- Turning the screw of the valve clockwise, results in a decreased mineral content.

We recommend keeping the TDS at the lowest possible level but not below 50mg/l.

Starting-up the Purifier

- Switch on the power supply
- Allow water to fill to the maximum level
- Switch off the power supply
- Open the faucet and drain water to remove residual dust particles present in the pipes and tank
- Close the faucet and switch on the power supply
- Purifier is ready to use

Recommended Usage of Rejected Water

Although the rejected water has high concentration of salts, it is absolutely clean and free from impurities like chlorine, dirt, sand, etc. This rejected water usually goes down the drain but can be used for gardening

purpose. The high concentration of salts and minerals accelerate the plant growth. Rejected water can also be used for cleaning utensils, mopping etc.

Maintenance

To ensure that the purifier operates at its BEST, a routine maintenance must be performed. The frequency of the maintenance will greatly depend upon the raw water quality and consumption of purified water.

- Tank must be drained and cleaned once in every 15 days
- Replace RO membranes once in a year
- Replace the UF Membrane once in a year
- Replace UV Lamp once in a year
- Replace sediment filter, activated carbon filter once in a year or earlier if they are clogged. It is recommended to change FRT along with the filters

Please note that the replacement time of consumables such as filters and membranes is dependent on the quality of raw water and the quantity of water consumed.

Replacement of spare parts are as under:-

-20013	SP Inline Sediment Filter 20"
-20014	SP Inline Carbon Filter 20"
20758	SP RO Membrane SHF
20756	SP FRT 1200
20004	SP UF Membrane 8"
20009	SP Inline Carbon Filter 8"

Recommended Frequency for Filters / Membrane Change

For optimum performance we recommend the following frequency for replacement of cartridges:

- | | |
|---------------------------|--|
| Sediment/Activated Carbon | → Once in a year or earlier if it gets clogged |
| RO/UF Membranes | → Once in a year or earlier if it gets clogged |
| UV Lamp | → Once in a year |

Technical Specifications

PRODUCT	KENT Elite 2+
Product Code	11079
Product Generic Name	Water Purifier
Product Colour	Natural
Applications	Suitable for Purification of Brackish/Tap Water Municipal Corporation Water
Installation	Suitable as attachment to water coolers
Body Material	Stainless Steel
Mounting	Floor Standing \ Wall-mounting
Purification Production Rate	100 L/hr.*
Max Duty Cycle	500 L/day
Filter Cartridge	Sediment, Activated Carbon, UF, Post Carbon
UV Lamp Wattage	11 W
Life of UV Lamp	5000 hrs. of operation
Membrane Type	Thin Film Composite RO
UF Membrane	0.1 – 0.01 Micron
Auto Flushing System	Yes
Inlet Water Pressure/Temp (Min)	0.3 kg / cm ² /10° C
Inlet Water Pressure/Temp (Max)	4 kg / cm ² /40° C
Min./Max. Operating pH	6.5-8.0
Booster Pump Voltage	24 V DC
Total Power Consumption	240 W
Input Power Supply	Single Phase 100 - 250 V AC, 50/60 Hz. <input type="checkbox"/>
Product Dimensions (mm)	505 (L) x 360 (W) x 746 (H)
Net Weight	33.2 kg

* Purification capacity tested on raw water with TDS level of 750ppm at room temperature