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Marketed by:  
**KENT RO SYSTEMS LTD.**  
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Manufactured by:  
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District-Haridwar, Uttarakhand-247 668, India.

For customer complaints, contact our Customer Care Officer at:  
E-6, 7 & 8, Sector-59, Noida, U.P.-201 309, India. Call : 092-789-12345  
E-mail: service@kent.co.in or visit us at www.kent.co.in

October, 2017 (Version 101701)

# KENT Sterling+

Under-the-counter RO Water Purifier  
with a built-in hydrostatic tank  
— Single Cabinet —



## Instructions Handbook



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

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

Mineral RO™ © 2005 – 2012 Kent RO Systems Limited.  
The process and the purifier is patented vide a Patent No. 199716



# Welcome to KENT

Dear Customer,

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

We are confident that your decision to own KENT Sterling+ Mineral RO™ will go a long way in serving you with pure and mineral enriched drinking water, thus keeping you and your family in good health. 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 Sterling+ Mineral RO™. 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.**



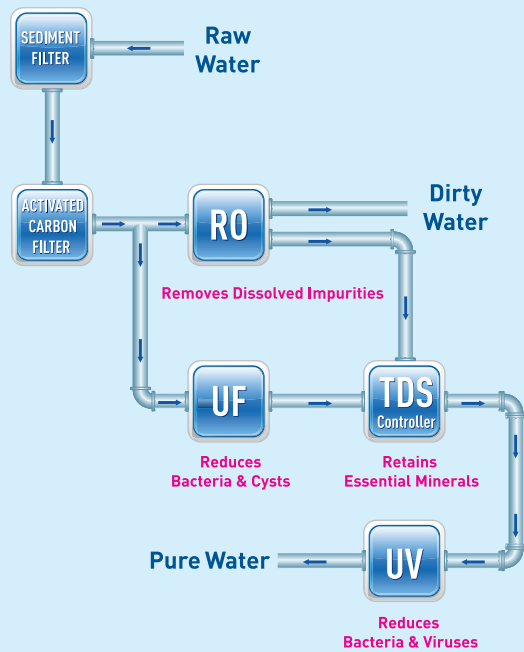
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## KENT TECHNOLOGY - A Breakthrough in Water Purification\*

KENT proudly presents KENT Sterling+ Mineral RO™ - a new and advanced domestic water purifier which provides pure & healthy drinking water.

The futuristic KENT Sterling+ Mineral RO™, developed at KENT Laboratory broadly comprises of state-of-the-art RO+UV+UF+TDS Control System. The initial purification by RO membrane having porosity as fine as 0.0001 microns reduces even the dissolved impurities (hard salts, heavy metals, etc.). Double purification by UV membrane gives additional protection from deadly harmful micro-organisms. Moreover, the patented TDS Control System intelligently retains essential natural minerals in purified water, thus taking total care of your health and well-being.



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

## Salient Features of KENT Sterling Mineral RO™

1. Compact single cabinet design for under-the-counter placement
2. Double purification by RO + UV\* with TDS Control Valve
3. Retains essential natural minerals in water with TDS Control Valve
4. UV Fail Alarm\* to indicate failure in UV system
5. 6 litres inbuilt hydrostatic storage tank makes purified water available on demand
6. Fully automatic operation with auto-on/off
7. Filter change alarm\* to indicate filter replacement time
8. Suitable for brackish / tap water / municipal water supply
9. Built-in SMPS to operate within 220 ± 10 V, AC voltage
10. Tamper-proof RO Purifier
11. Membrane fused inside membrane housing
12. Ideal for under-the-counter as well as side-by-side placement adjacent to refrigerator



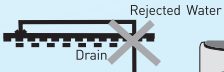
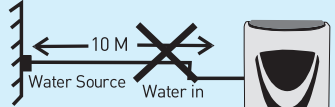
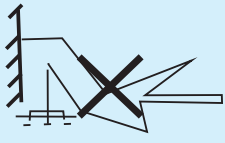


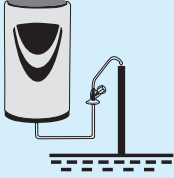



## Items in the Box

1 KENT Sterling+ Mineral RO™ Water Purifier	:	01 No.
2 3-Way Connector	:	01 No.
3 S.S. Ball Valve	:	01 No.
4 Faucet	:	01 No.
5 Instruction Handbook	:	01 No.
6 Food Grade Pipe ¼" (Blue)	:	2.5 m
7 Food Grade Pipe ¼" (White)	:	5 m

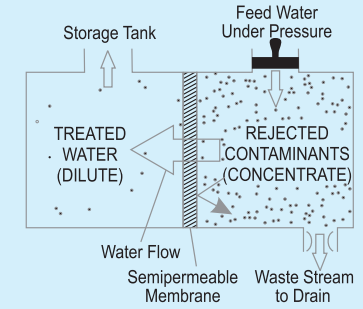
\*Tested & certified by TUV-SUD South Asia (P) Ltd.

## Important Instructions

 <p>Avoid exposure to direct sunlight and installation in damp areas.</p>	 <p>Make sure that the purifier is connected to normal temperature water supply only.</p>
 <p>Make sure that the rejected water pipe is not placed at a level higher than the purifier, otherwise rejected water may flow backwards into the purifier.</p>	 <p>Maximum distance between the water source and purifier should not be more than 3 meters.</p>
 <p>Avoid sharp bends in pipes.</p>	 <p>Do not confine the purifier in a cabinet.</p>
 <p>In case of not using the purifier for more than two days, kindly switch off the power supply and drain out the storage tank.</p>	 <p>To keep the storage tank clean, it should be drained once in 15 days.</p>
<p><b>KENT</b> <b>GENUINE</b> SPARE PARTS</p> <p>Use Genuine KENT spares for optimum performance.</p>	 <p>Do not try to service the purifier on your own. Instead, call service technician for help.</p>

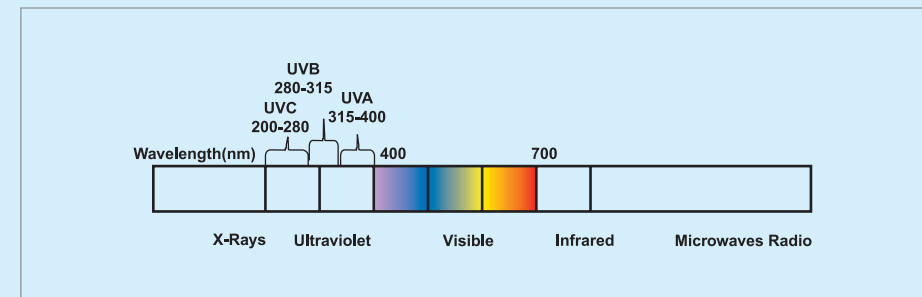
## Reverse Osmosis Process

Reverse Osmosis process, also known as hyper filtration, is the finest filtration process known till date. It ensures reduction of particles as small as ions from a solution. Reverse Osmosis process uses a semi-permeable membrane to reduce salts from potable/ brackish water. In Reverse Osmosis, water pressure is applied to the inlet impure water resulting in squeezing of pure water from the 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 the RO membrane. These rejected impurities suspended on the concentrated end of the membrane are washed away in a stream of waste water, preventing the membrane from clogging.



## UV Process

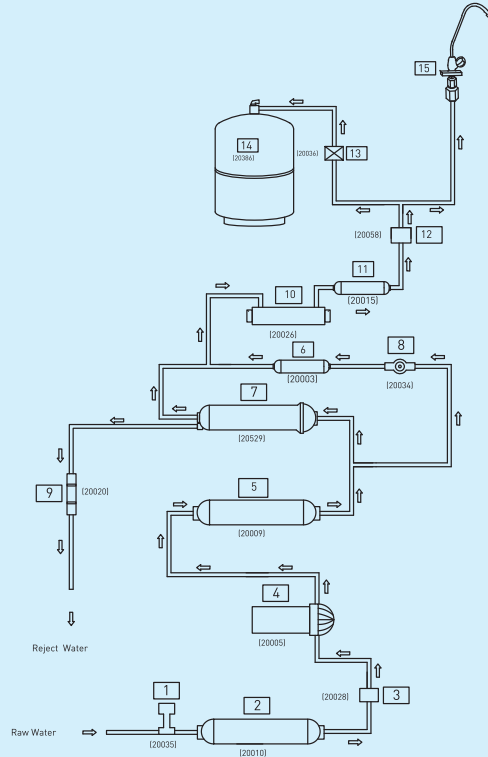
The UV light has shorter wavelength (higher energy) than the visible light. It is called ultra-violet because it is just beyond violet light in the light spectrum. Technically, the ultra-violet light is defined to be any wavelength of light, which is shorter than 400 nanometer. UV rays, which penetrate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



## Water Flow Diagram

### KENT STERLING+ RO + UV - 11053

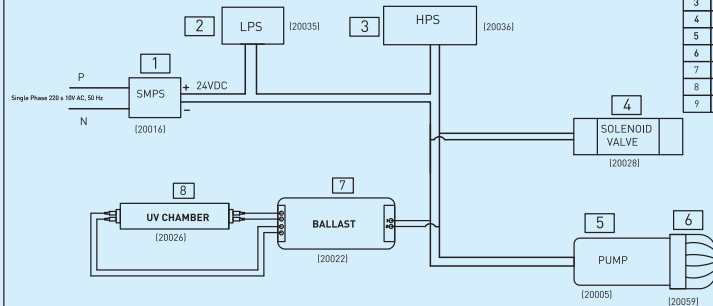
(WATER FLOW DIAGRAM)



S.NO.	SP. CO.	ITEM DESCRIPTION
1	20035	LOW PRESSURE SWITCH
2	20010	SEDIMENT FILTER
3	20028	SOLENOID VALVE
4	20005	BOOSTER PUMP
5	20009	ACTIVATED CARBON FILTER
6	20003	UF FILTER
7	20529	RO MEMBRANE
8	20034	TDS CONTROL VALVE
9	20020	FLOW RESTRICTOR TUBE
10	20026	UV CHAMBER
11	20015	POST CARBON FILTER
12	20058	NON RETURN VALVE
13	20036	HIGH PRESSURE SWITCH
14	20386	HYDROSTATIC STORAGE TANK
15	20183	FAUCET

## Electrical Circuit Diagram

(ELECTRICAL CIRCUIT DIAGRAM)



S.NO.	SPARE PART CODE	ITEM DESCRIPTION
1	20016	SMPS
2	20035	LOW PRESSURE SWITCH
3	20036	HIGH PRESSURE SWITCH
4	20028	SOLENOID VALVE
5	20005	BOOSTER PUMP
6	20059	PUMP HEAD
7	20022	BALLAST
8	20026	UV CHAMBER
9	20025	UV LAMP

## Warranty Card

(For Sale through Dealer)



Product : **KENT STERLING+**

Serial No. :

### Customer Details:

Customer's Name: \_\_\_\_\_

Customer's Address: \_\_\_\_\_

Customer's Ph. No.: \_\_\_\_\_

### Warranty Details:

Invoice Date: \_\_\_\_\_ Invoice No.: \_\_\_\_\_

Date of Installation: \_\_\_\_\_ Stamp of Service Provider

### For Service Contact:

Service Provider's Name: \_\_\_\_\_

Service Provider's Address: \_\_\_\_\_

Ph. No.: \_\_\_\_\_

Marketed by: **KENT RO SYSTEMS LTD.**

E-6,7 & 8, Sector-59, Noida, U.P.-201 309, India.

Ph.: +91-120-3075000

E-mail: [service@kent.co.in](mailto:service@kent.co.in) | Website: [www.kent.co.in](http://www.kent.co.in)

Customer Care: 092-789-12345



## Terms & Conditions of Warranty

The Manufacturer of KENT Sterling+ Mineral RO™ Water 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.: +91-120-3075000

E-mail: [service@kent.co.in](mailto:service@kent.co.in) | Website: [www.kent.co.in](http://www.kent.co.in)

### UV Fail Alarm\*

KENT Sterling+ Mineral RO™ has an in built feature that produces an audible alarm if the UV lamp malfunctions. This feature is provided to ensure pure water. This UV Fail Alarm will sound as following:

Two short beeps after every two seconds.



In case 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.

### Automatic Operation

- The purifier automatically shuts off when the storage tank is full.
- The purifier does not start when inlet water supply pressure falls below 0.3 kg/cm<sup>2</sup>.
- The purifier automatically restarts when water level drops below the maximum.
- The purifier doesn't allow any water rejection in absence of electricity or when the tank is full.

### Installation Instructions

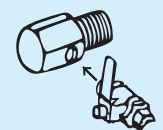
KENT Sterling+ Mineral RO™ Water Purifier is a convenient and user-friendly under-the-counter model.

### Recommended Site Preparations

- Single Phase 220± 10 V, AC 50 Hz supply, not more than 3 m away from the point of installation.
- Raw water supply with ½ inch nipple not more than 3 m away.
- Drain for reject water not more than 3 m away.
- Installation space as per the dimensions of the purifier.
- For optimum inlet pressure, source water tank should be at least 10 ft above the installed purifier.
- Install the purifier near a sink for easy availability of inlet and reject water lines.
- The system and installation need to comply with state and local laws and regulations.

### Installation Procedure

1. Fix the SS ball valve to the ¼ inch port of the 3-way connector as shown in the figure.
2. Connect the 3-way connector to the raw water supply as shown in the figure. The threaded end of the 3-way connector is fit in-line with the raw water supply. The other end can be connected to a tap or plugged off, if not required.



## Installation Report

Product : **KENT STERLING+**

Serial No. \_\_\_\_\_

Customer's Name \_\_\_\_\_

Customer's Address \_\_\_\_\_

Customer's Ph. \_\_\_\_\_

Customer's Signature \_\_\_\_\_

Invoice No. \_\_\_\_\_

Invoice Date \_\_\_\_\_

Installation Date \_\_\_\_\_

Service Provider's Name \_\_\_\_\_

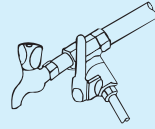
Service Provider's Address \_\_\_\_\_


Service Provider's Ph. \_\_\_\_\_

Service Provider's Stamp \_\_\_\_\_

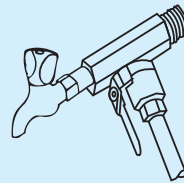
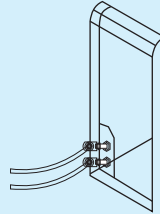
*By signing on this installation report, the customer hereby agrees to the terms & conditions of warranty mentioned on the back side of the warranty card*

3. Now connect one end of the white pipe to the SS ball valve and other end to the lower pushfit elbow fitting on the back side of the purifier labeled as 'Water In'.
4. Similarly, connect one end of the blue pipe to the fitting connector labeled as 'Reject Water' and leave the other end in the drain.



 Use blue pipe for reject water


5. Install the faucet on the kitchen sink or the slab. Connect one end of the white pipe to the faucet and the other end to the fitting connector labeled as 'Faucet'.
6. Before connecting the power supply, it is important that you perform the following functions:
  - i Open the SS ball valve (Handle parallel to the ball valve) to start the flow of water into the purifier.
  - ii Wait for 2-3 minutes to ensure that the filters are soaked in water.



### 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 anticlockwise, 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.
- Wait approximately for half an hour so that the storage tank is full\*\*.
- Switch off the power supply.
- Drain off the storage tank by opening the faucet to remove any dust particles from the pipe and storage tank.
- Close the faucet & switch on the power supply.
- The purifier is ready to use.

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

\*\*Tested & certified Flushing Time - 24 Hours.

### 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 it can be used for gardening purposes. The high concentration of salts and minerals accelerate 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.

- Storage tank must be drained once in a week.
- Replace sediment filter and activated carbon filter once in 12 months or earlier if they get clogged. It is recommended to change the FRT along with the filters.
- Replace RO membrane once in a year or earlier if it gets clogged.
- Replace UV lamp once a year.
- In the event of not using the purifier for a long time (while going for a holiday, tour, etc.), ensure that you disconnect the power supply, turn off the raw water supply and drain out the storage tank.

### Replacement of spare parts are as under:


-20010	SP Inline Sediment Filter 8"
-20009	SP Inline Carbon Filter 8"
-20529	SP RO Membrane
-20015	SP Post Carbon Filter (Blue)
-20003	SP Hollow Fibre Membrane (RO)
-20020	SP FRT 300

**Note:** Filters and membranes 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 clogging of pores of membranes.

This reverse osmosis system contains a replaceable component critical to the efficiency of the system. 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.



## Technical Specifications

MODEL Name	KENT STERLING*
Model No.	11053
Product	Water Purifier - RO with UV Disinfection
Applications	Suitable for Brackish/Tap Water/Municipal Water Supply
Purification Production Rate	Upto 20 L/hr. or 0.33 L/min*
Body Material	ABS Food Grade Plastic
Mounting	Under-the-counter
Dimensions (mm)	445 (L) x 245 (W) x 420 (H)
Inlet Water Pressure / Temp (Min.)	0.3 kg/cm <sup>2</sup> or 4.267 psi/10° C or 50° F
Inlet Water Pressure / Temp (Max.)	3.0 kg/cm <sup>2</sup> or 42.67 psi/40° C or 104° F
Min./Max. Working Pressure	20/150 psi
Min./Max. Operating pH	2-11
Filter Cartridge	Sediment, Activated Carbon, UF and Post Carbon
UV Lamp Wattage	11 W
Life of UV Lamp	1 Year
UF Membrane	0.01-0.1 microns
RO Membrane	Thin Film Composite RO
Storage Capacity	6 Litres
Maximum Duty Cycle	100 L/day
Net Weight	11.90 kg
Booster Pump Voltage	24V DC
Total Power Consumption	60 W
Input Power Supply	Single Phase 220 ± 10 V, AC 50 Hz. 

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