

KENT MAXX

Double Purification
UV+UF

ISI Marked

KENT
Ultra Violet
Water Purifiers
HOUSE of PURITY

KENT
Ultra Violet
Water Purifiers
HOUSE of PURITY

Instruction Handbook for Installation, Operation and Maintenance.



June, 2015



KENT TECHNOLOGY
UV + UF Purification

For customer complaints, contact customer care officer at:
A-2, Sector-59, Noida, UP-201 309, India. Call : 092-789-12345
E-mail: service@kent.co.in or Visit us at www.kent.co.in

Manufactured by:
KENT RO SYSTEMS LTD.
Khasra No. 93, Village-Bantakhedi, Tehsil-Roorkee,
District-Haridwar, Uttarakhand-247 668, India



Marketed by:
KENT RO SYSTEMS LTD.
A-2, Sector-59, Noida, U.P.-201 309, India
Ph.: +91-120-3075075
E-mail: sales@kent.co.in Website: www.kent.co.in

UV Purifier with Ultra Filtration Process
and Computer Controlled Operation

Standard IS 14724 is applicable for water purifiers with ultra violet disinfection.

Standard IS 14724 is applicable for water purifiers with ultra violet disinfection.

Welcome to KENT

Dear Customer

Welcome to the world of **KENT**, leaders 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 MAXX** will go a long way in serving you with purer and healthier 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 familiarizing you with the operation and maintenance of **KENT MAXX**. 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. Introduction	1
2. Salient Features of KENT MAXX	1
3. Items in the Box	1
4. Important Instructions	2
5. UV Process	3
6. UF Process	3
7. Water Flow Diagram	4
8. Electrical Circuit Diagram	4
9. Computer Controlled Operation	5
10. UV Fail Alarm	5
11. Filter Change Alarm	5
12. Installation Instructions	6
13. Starting up the Purifier	7
14. Maintenance	7
15. Cleaning the Water Tank	8
16. Technical Specifications	8

Introduction

KENT proudly presents **KENT MAXX** - the new advanced fully automatic UV purifier with storage tank.

The innovative **KENT MAXX**, developed at **KENT** laboratory, provides the double purification of UV+UF. While the initial purification by UV deactivates bacteria and viruses, the double purification by fine pores of Hollow Fibre UF membrane reduces them from the purified water. The Activated Carbon pre-filter reduces bad taste and odour, so that the water you drink is healthy, safe and tasty.



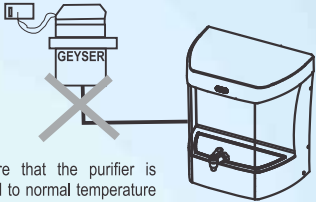


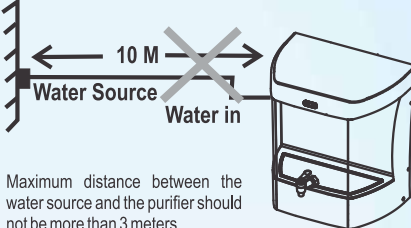


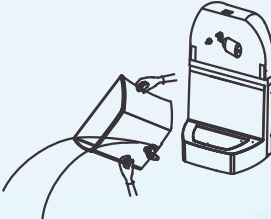



Salient Features of KENT MAXX

- Wall mounted design - best suited for domestic purpose
- Double purification, first by UV followed by Hollow Fiber UF membrane - filters out bacteria, virus and even cysts
- Fully automatic operation with auto-on and auto-off facility
- Computer Controlled Operation with Filter Change Alarm and UV Fail Alarm
- Transparent, detachable tank for easy on-site cleaning
- Purified water storage tank with 7 ltr capacity
- LED indicators for power on and purification process on display.
- Tamper-proof UF Membrane fused inside membrane housing
- Push-fit components give leak-proof & maintenance-free performance
- Mounted SMPS for over voltage protection
- ABS material construction for corrosion-free life span
- Ideal for Tap/Municipal water supply.

Items in the Box

1. KENT MAXX	:	01 No.
2. 3-Way Connector	:	01 No.
3. S.S. Ball Valve	:	01 No.
4. Food Grade Pipe ¼ inch (White)	:	2.5 meters
5. Screws & Plastic Inserts	:	02 each
6. Instruction Manual	:	01 No.
7. Center Drill Sticker	:	01 No.

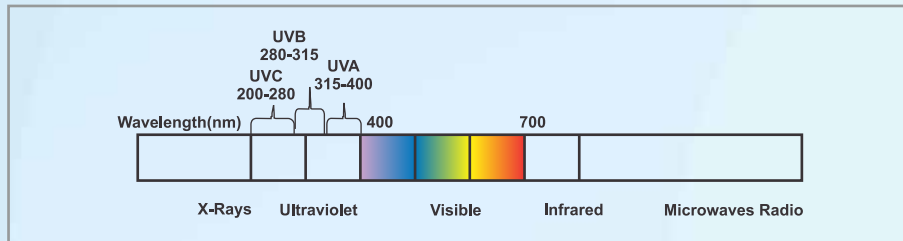
Important Instructions

  <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>Avoid sharp bends in pipes.</p>	 <p>Maximum distance between the water source and the purifier should not be more than 3 meters.</p>
  <p>In case the purifier is not to be used for more than two days, switch off the power supply and drain the storage tank.</p>	 <p>To keep the storage tank clean, it should be removed, drained and wiped dry, once in 15 days.</p>
<p style="text-align: center;">KENT</p>  <p style="text-align: center;">Use Genuine Kent spares for optimum performance</p>	  <p>Do not try to service the purifier on your own. Instead, call the service technician for help.</p>

UV Process

Ultra Violet (UV) rays are the high energy rays having a wavelength shorter than the visible light. They are called ultra-violet because they are just beyond the violet light in the spectrum. Technically, ultra-violet light is defined as any wavelength of light which is shorter than 400 nanometer.

When penetrated into water, the UV radiations are absorbed by the DNA of pathogens. These UV rays alter the DNA of these pathogens in such a way that they lose the ability to reproduce, multiply and infect. Thus, they are essentially killed and cannot cause infection. This process of DNA modification is known as inactivation.



UF Process

Ultra Filtration is a separation process that uses membranes with pore size of 0.1 micron. The UF membrane has the capacity to reduce colloidal materials including bacteria and cyst from drinking water. Low applied pressure is therefore sufficient to achieve high flux rates from an Ultra Filtration membrane.

Warranty Card

(For Sale through Dealer)

Product : **KENT MAXX**

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.**
A-2, Sector-59, Noida, U.P.-201 309, India
Ph.: +91-120-3075075
E-mail: service@kent.co.in Website: www.kent.co.in
Customer care: +91-120-4669666

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.

A-2, Sector-59, Noida, U.P. - 201 309, India

Ph.: +91-120-3075075

E-mail: sales@kent.co.in Website: www.kent.co.in

Installation Report

Product : **KENT MAXX**

Serial No. _____

Customer's Name _____

Customer's Address _____

Customer's Ph. _____

TDS of Purified Water _____

Customer's Signature _____

Invoice No. _____

Invoice Date _____

Installation Date _____

Service Provider's Name: _____

Service Provider's Address _____

Service Provider's Ph. _____

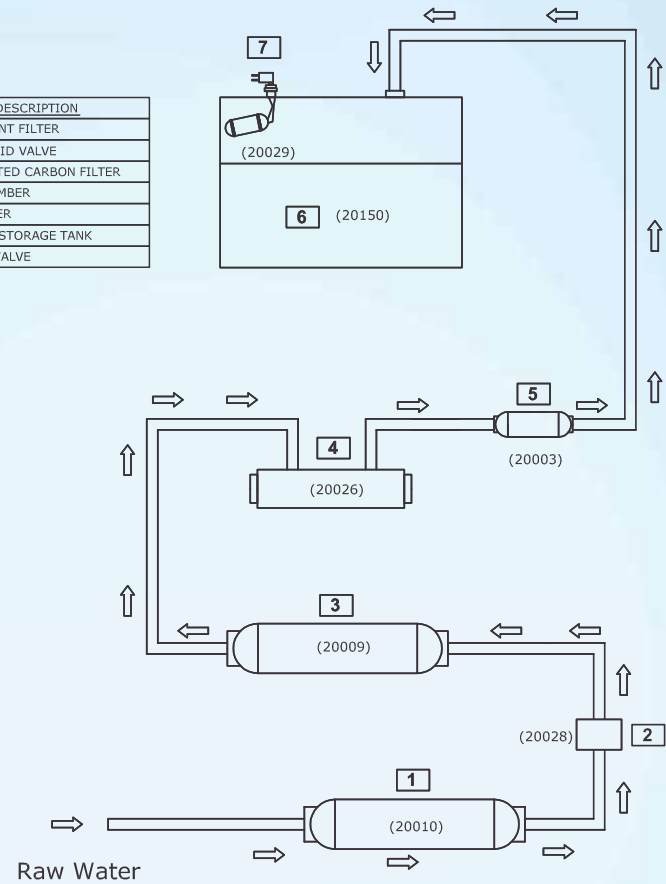
TDS of Raw Water _____

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.

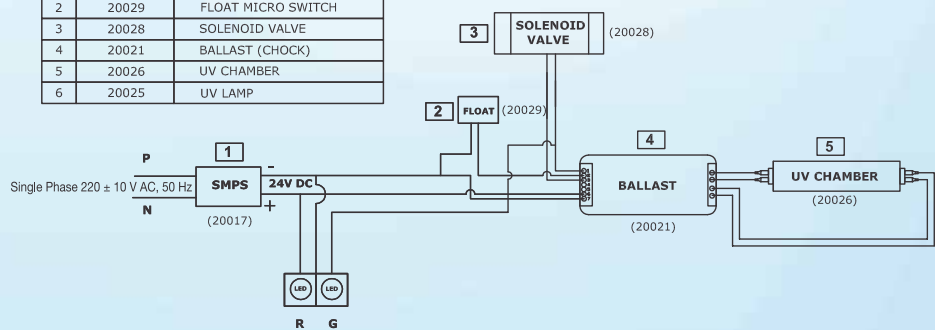
Water Flow Diagram

S.NO.	SPARE PART CODE	ITEM DESCRIPTION
1	20010	SEDIMENT FILTER
2	20028	SOLENOID VALVE
3	20009	ACTIVATED CARBON FILTER
4	20026	UV CHAMBER
5	20003	UF FILTER
6	20150	WATER STORAGE TANK
7	20029	FLOAT VALVE



Electrical Circuit Diagram

S.NO.	SPARE PART CODE	ITEM DESCRIPTION
1	20017	SMPS
2	20029	FLOAT MICRO SWITCH
3	20028	SOLENOID VALVE
4	20021	BALLAST (CHOCK)
5	20026	UV CHAMBER
6	20025	UV LAMP



Computer Controlled Operation

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

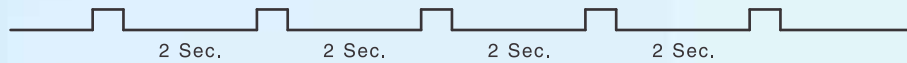
UV Stabilization Delay: To ensure that the UV lamp is pre-heated and is working at its optimum before it starts disinfecting water, the controller provides a two second delay to UV lamp when a purifier is switched on. During this period, only UV lamp is on and all other electrical devices of purifier are switched off and no water flows through.

Purification Delay: To ensure that the water lying idle in the internal pipes and the UV chamber is thoroughly disinfected before being passed onto the storage tank, the system provides approximately 5 seconds Purification Delay when the purifier is switched on. During this period, all electrical devices except UV lamp are switched off and UV lamp kills the micro-organisms present in water inside the UV chamber. After this delay, all other electrical devices such as solenoid valve etc., get activated and the normal purification process starts.

Audible Alarm: Microprocessor also controls the activation of UV Fail Alarm and Filter Change Alarm.

UV Fail Alarm

To ensure purer water throughout the service cycle, KENT MAXX is equipped with an in-built UV Fail Alarm which gets activated in an event of UV lamp failure. In case the UV lamp malfunctions, the purification process automatically stops and purifier starts emitting a short beep at an interval of every 2 seconds.

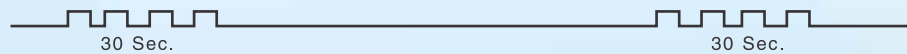


Under such circumstances, switch off the purifier and call the service technician for help. The purifier will stop purification in such a situation.

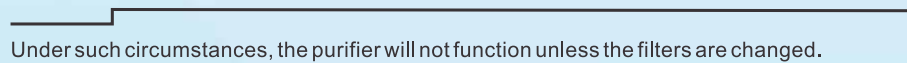
Filter Change Alarm

KENT MAXX has an in-built feature that sounds an audible alarm to indicate the replacement time of filters. This alarm is audible after 700 hrs of filter use. The Filter Change Alarm works as follows:

Gives 4 short beeps after every two seconds lasting upto 30 seconds. The alarm gets activated after every 2 hours of use.



Please call the service technician once the Filter Change Alarm is activated and get the filters replaced. In case the filters are not replaced within next 60 hours of operation, the purifier stops functioning to avoid the delivery of impure water and emits a beep continuously.



Under such circumstances, the purifier will not function unless the filters are changed.

Installation Instructions

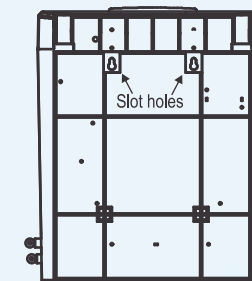
KENT MAXX is a convenient and easy-to-install wall mounting model.

Recommended Site Preparations:

- 220 \pm 10 V, 50 Hz single phase AC supply not more than 3m away from the point of installation
- Raw water supply with ½ inch nipple not more than 3m away
- Installation space as per the dimensions of the purifier
- Wall/ plane surface for mounting screws and holding the machine. Avoid installation on wooden and metallic stands
- For optimum inlet pressure, source water tank should be at least 10 ft above the purifier installed
- Install the purifier near a sink for easy availability of inlet water lines
- The system and installation must comply with applicable state and local laws & regulation.

Installation Procedure:

1. Screw in two 10x50 self tapping screws, 5.4 inches (138 mm) apart horizontally.
2. Wall-mount the purifier with the help of slot holes given on the back side.



3. Fasten the SS ball valve to ¼ inch port of 3-way connector.

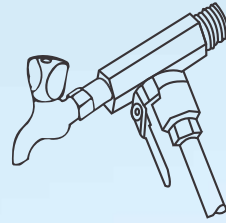


4. Attach threaded end of 3-way connector to raw water supply and plug off the other end or connect to a tap.



5. Now connect one end of pipe to SS ball valve and other end to elbow fitting connector labeled as WATER IN, on the left side of purifier.
6. Turn on the lever given on SS ball valve to initiate the water flow to purifier.

7. Allow the filters to pre-soak in water for 2-3 minutes.
8. Connect the power supply.
9. Installation is complete.



Starting up the purifier

- Switch on the power supply
- Allow the storage tank to fill up to the Maximum level
- Switch off the power supply
- Open the upper cover. Lift and drain the storage tank so as to remove the residual
- dust particles initially present in the pipes and storage tank
- Place back the storage tank and close the upper cover
- Switch on the power supply
- Purifier is ready to use



Note: The glowing Red LED indicates the power is on. The glowing Green LED indicates the purification process is on.

Maintenance

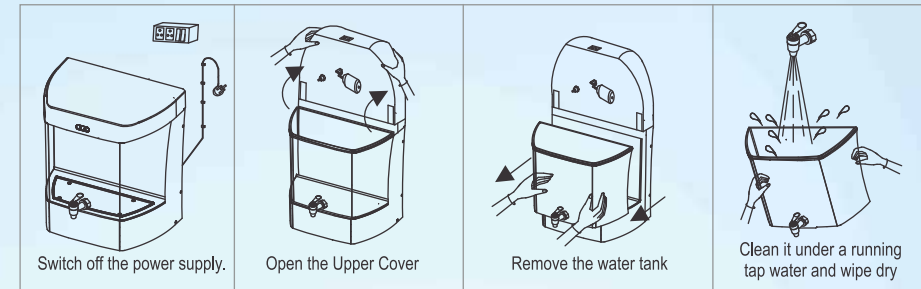
To ensure that the purifier operates at its BEST, a routine maintenance must be performed. The frequency of the maintenance will greatly depend upon the raw water quality and consumption of purified water.

- Storage tank must be cleaned once in a week. (Refer **Cleaning the water tank** Pg. 8)
- In the event of not using purifier for more than two days (while going on a holiday, tour etc.), turn off the raw water supply and drain the storage tank
- Replace sediment filter and carbon filter once in 12 months
- Replace UF membrane once in 6 months



The replacement time of consumables such as filters and membrane is dependent on the quality of raw water and water consumed.

Cleaning the Water Tank



Recommended Frequency for Filter/membrane Change

- Sediment/Carbon → Once every year or earlier if gets clogged
 UF Membrane → Once every 6 months or earlier if gets clogged

Technical Specifications

MODEL NAME	KENT MAXX
Model No.	11013
Product	Water Purifier With Ultra Violet Disinfection
Applications	Ideal for Tap/Municipal water supply.
Max. Purification Production Rate	60L/hr or 1L/min (depending on inlet water pressure)
Body Material	ABS Food Grade Plastic
Installation	Wall Mounting/Counter-Top
Dimensions (mm)	390 (L) x 285 (W) x 400 (H)
Weight	6.100 kg
Purified Water Tank Capacity	7L
Inlet Water Pressure/Temp (min)	0.3 kg/cm ² or 4.267 psi / 10°C
Inlet Water Pressure/Temp (max)	3 kg/cm ² or 42.67 psi / 35°C
Filter Cartridge	Sediment, Activated Carbon, UF
UF Membrane Pore Size	0.1 Micron
UV Lamp Wattage	11W
Life of UV Lamp	One Year
Voltage Output of SMPS	24V DC
Total Power Consumption	36 W
Input Power Supply	Single Phase 220 ± 10 V AC, 50 Hz