



# KENT Perk Star

Hot & Cold Water Dispenser  
with In-built RO Purifier  
and Digital Display



Instruction Handbook for  
Installation, Operation and Maintenance.



**KENT TECHNOLOGY**  
Removes Dissolved Impurities  
Retains Essential Minerals  
Multiple Purification with Purity in Every Drop  
RO + UF + TDS Control + UV in Tank



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

Marketed by:  
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Made in India

# 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 Perk Star** Water Dispenser with in-built RO 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 Perk Star** Water Dispenser with in-built RO Purifier. Read this manual carefully prior to using the product for easy operation of the system and retain it for future reference.

Best Wishes

KENT RO SYSTEMS LTD.

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## KENT TECHNOLOGY-A BREAKTHROUGH IN WATER PURIFICATION

Presenting the **KENT Perk Star Water Dispenser in-built RO Purifier** with a large digital display that provides real-time information with dispensing temperature, ensuring complete transparency and ease of monitoring. It dispenses hot, cold and ambient water instantly and uses state-of-the-art technology to provide purer.

The heart of KENT is a RO membrane having capillaries as small as 0.0001 microns which reduces dissolved impurities as well as harmful micro-biological impurities (bacteria, viruses etc.) and also converts hard water to sweet and pure drinking water.

### SALIENT FEATURES

KENT proudly presents **KENT Perk Star** Water Dispenser with in-built RO Purifier—an advanced purer water dispenser based on a cutting edge technology which broadly comprises of RO+UF+TDS control+UV in tank systems, thus taking total care of your health and well-being. It has following features:

**Multi-functional:** It dispenses Hot, Cold & Ambient water with the convenience of direct water supply connection. It also features an advanced unlock key to access Hot water. It's a multi-functional machine for homes, offices, showrooms, institutions, hotels etc.

**5-Stage Water Purification:** KENT Perk Star incorporates five stage water purification to ensure pure water. Moreover, it is ideal for municipal, corporation water supply.

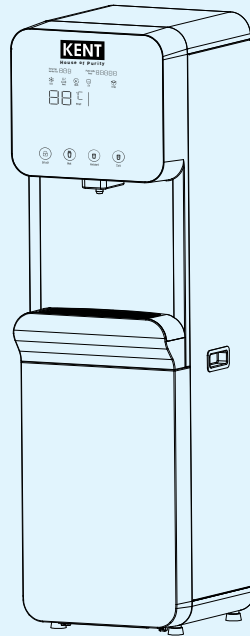
**High Storage & Purification Capacity:** It has a total storage capacity of 22 litres (12L normal, 8L cold, 2L hot) and purifies 40 litres per hour, ensuring a steady water supply..

**Digital Display & Smart LED control panel:** Its large digital display provides real-time information with dispensing temperature, ensuring complete transparency and easy monitoring. It also offers instant dispensing of hot, cold, and ambient water to suit different needs. Additionally, the Large Smart LED control panel enables effortless selection between temperature options, making it highly convenient for everyday use.

**Design Aesthetics:** KENT Perk Star has been aesthetically designed with large Digital Screen and is built with durable steel body for long-lasting performance and reliability to fit in the workplace as well as at residence

**Ease of Access:** KENT Perk Star provides you an ease of connection to direct water supply thus discarding need of mounting a bottle on the dispenser

**Trouble-free Performance:** KENT Perk Star is easy to maintain and service. It has been rigorously tested under stringent conditions to ensure trouble-free service for years

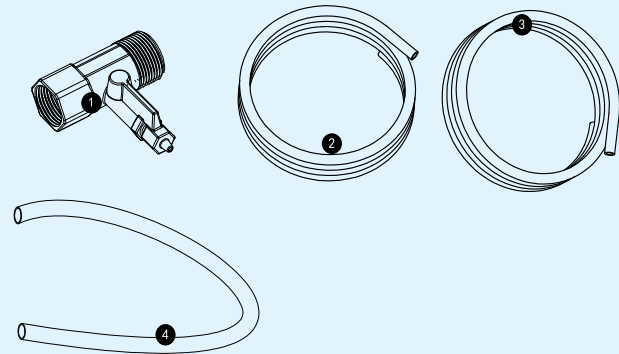


**Intelligent Controls:** Embedded with a refrigeration system, it utilises a double protection temperature controller which maintains the water temperature between 6-10 ° C. This range of temperature is ideal for making ice tea, lime water and other beverages

**Secure Against Water Overflow:** KENT Perk Star integrates float valve which provides protection against water overflow

### ITEMS IN THE BOX

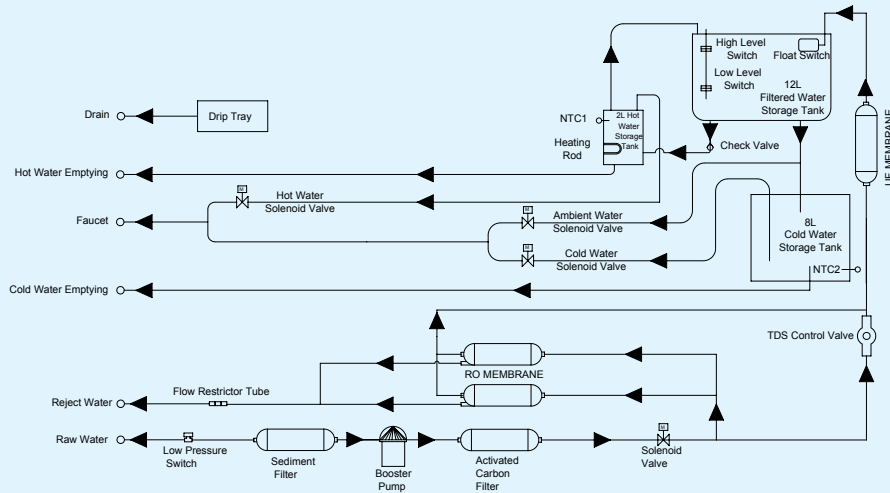
- |                           |   |   |
|---------------------------|---|---|
| 1. T-adaptor valve (1/2") | : | 1 |
| 2. 1/4" Tubing            | : | 1 |
| 3. 3/8" Tubing            | : | 1 |
| 4. Drain Tubing(18mm)     | : | 1 |



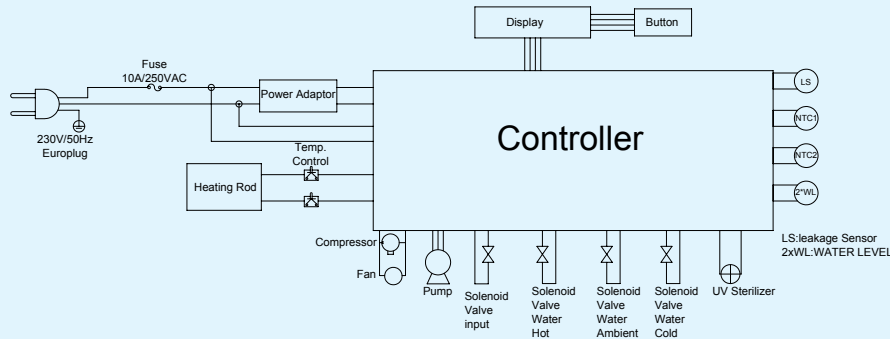
### REVERSE OSMOSIS PROCESS

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

## WATER FLOW DIAGRAM



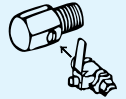
## ELECTRICAL CIRCUIT DIAGRAM



## INSTALLATION INSTRUCTIONS

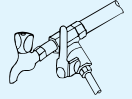
### Before Installation

1. Check the accessories in the packing box and make sure if they are complete.
2. Shut off the water supply before installation.
3. Prepare tools or equipments required for installation.



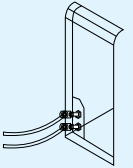
### Step-1 Select System Installation Locations

### Step-2 Unpack machine and place it on the levelled surface.



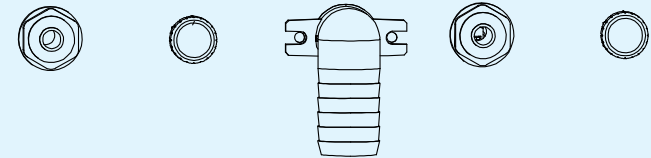
### Step-3 Fix the SS ball valve to the 1/4 inch port of the 3-way connector as shown in the figure

### Step-4 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



### Step-5 Connect Tubings

### Please familiarize yourself with the connections on the back of machine:



RO Drain    Cold Tank    Drip Tray    Inlet    Hot Tank  
Caution Hot!

**RO Drain:** This connection is to drain the RO concentrated water, use 1/4" tubing.

**Cold Tank:** This drainage is used to empty the water in cold water storage tank.

**Drip Tray:** This connection is to drain the water in drip tray, use 18mm tubing to connect

**Inlet:** This connection is to connect to the T-adaptor inlet valve, use 3/8" tubing.

**Hot tank:** This drainage is used to empty the water in hot water storage tank.

### Start-Up Instructions

#### Step-1 Connect Water Supply and Power Supply

1. Open the inlet 3-way valve to connect to water supply.
2. Plug the power on. (Check the power supply is applicable)
3. Check the pump is running and water is filling into the storage tank, when the tank is full, system stop producing water



## Step-2 Flush the Tanks and Tubings

1. When the purifier is full of water, unlock the screen, press the "hot" key to let water flush the hot tank.
2. As the ambient water storage tank is short of water, wait the purifier to refill the water and then press the cold key to flush the cold tank.
3. Use this way to flush the hot tank and cold tank for 3 times.

## Step-3 Activate the Heating Function

1. Press and hold "Unlock" and "Cold" key simultaneously for 10 seconds to enter system setting menu.
2. Continuously short press the "Cold" key to select code number "C21".
3. Press the "Hot" key to change the option to number 1.
4. Press and hold the "Cold" key for 5 seconds to save and exit setting menu.
5. Heating function is activated.
6. Your drinking purifier is ready to use.

## LED DISPLAY & TOUCH KEYS PROGRAMMING GUIDE

Remaining Service Days  Plastic Bottle Saved 



### NOTE

After water continuously running for one minutes, the system will automatically cut off water, and keys need to be pressed again to take water



Unlock

This is child lock protection, hot water can only be used if screen is unlocked, press "Unlock" key to unlock the screen.



Hot

At standby status, press "Unlock" key to unlock the screen, then press "Hot" key to get hot water.



Ambient

At standby status, press "Ambient" key to get ambient water.



Cold

At standby status, press "Cold" key to get cold water.



Cool

Icon Light On: Purifier start to cool down the water in cold water tank and keep water temperature within the range of setting



Heat

Icon Light On: Purifier start to heat the water in hot water tank and keep water temperature within the range of setting



Work

Icon Light On: Purifier star to produce filter water as the water level inside filtered tank lower than the high level switch



UV

Icon Light On: UV in tank light start to sterilize the water inside, it will only work if ambient & cold water being used.



Energy

Icon Light On: If no one uses water for several hours this is preset value in system setting page, default is zero, the purifier will automatically turn off the heating function to save energy.



If the system is working properly, it will always display number 365. If the system fails, the corresponding error code will be displayed, find it in error code menu and get solution.



This use a formula to calculate out how many plastic bottles of water are saved based on the amount of water used, this is an initiative to reduce the use of plastic.



This is the water temperature display area. At standby mode, it shows the temperature of hot water and cold water alternately, as hot water or cold water is used, it shows the temperature of water being used.

## SYSTEM SETTING MENU INTRODUCTION

### Setting operation

1. Press and hold "Unlock" and "Cold" key simultaneously for 10 seconds to enter system setting menu.
2. Continuously short press the "Cold" key to change setting code.
3. Press the "Hot" key to go up (plus value) or press "Ambient" key to go down(minus value).
4. Press and hold the "Cold" key for 5 seconds to save and exit setting menu.
5. If no key is operated in 1 minute, display will automatically go back to standby display.

	Item	Code	Option	Default	Unit	Remark
Time	Hour	C04	0-23	/	Hour	Need to set if Time Switch On&Off Function set ON.
	Minutes	C05	0-59	/	Minutes	
Power	Time Switch On&Off	C06	1,0	0	/	1: Turn on 0: Turn off
	Time Switch On	C07	0:00-23:00	6:00	Hour	08:00
	Time Switch Off	C08	0:00-23:00	22:00	Hour	20:00
Drink Water	Way to Drink	C11	1,2	2	/	1: Press and hold 2: Twice touch
	Child Lock	C12	1,0	1	/	1: Yes 0: No
Heating	Heating Switch	C21	1,0	1	/	1: Turn on 0: Turn off
	Temperature	C22	45-99	99	C	
Energy-Saving		C23	0/2/4/6/8	0	Hour	"0" means to close energy saving
Cooling	Cooling Switch	C31	1,0	1		1: Turn on 0: Turn off
	Temperature	C32	6-10	6	C	
Sterilizing	UV delay Shut Off	C51	10-90	10	Minutes	The interval is 10 minutes
Reset	Plastic Bottles	C62	1,0	0	/	1: Reset to zero Code C98 has to be set to "0"
Display	Backlight	C93	1-8	5	/	
Lock	Setting Lock	0,1	0,1	0	/	The setting has to be set to "1" When set code C62
Default Setting	Restore Factory Defaults	0,1	0,1	0	/	1: Restore Factory Defaults
						Automatically change to "0" after restore factory default.
						Invalid for code C61, C62, C81, C82,

## SERVICE AND MAINTENANCE

### Service Schedule

To keep the drinking system operating properly, it is necessary to change the filters periodically.

Typically, this should be done on 6 months basis. Service frequency may vary depending on local water conditions. High sediment, chlorine, turbidity, or hardness levels may require more frequent service.

### Use the Following as a Guide:

F filters	Service Schedule
Stage 1 Sediment Filter	6 months
Stage 2 Carbon Filter	6 months
Stage 3 RO Membrane Filter	6 months
Stage 4 UF Filter	6 months

Note: Filter life may vary depending on different water quality, RO filter life will be affected by other factors. The service schedule above is only for reference.

### When to Replace Filters?

#### If following situations occur, filter elements may need to be changed.

1. Produced water quality is poor, taste bad.
2. Product water rate decrease dramatically, Sediment filter or RO membrane may clog. (Make sure it is not caused by cold water temperature).
3. The filter life indicator is flashing.

#### How to Replace Filter Elements?

1. Close the T-adaptor valve to shut off water supply.
2. Press "Ambient key to let water flow until the "Work" icon light on, this is to release the pressure inside machine.
3. Turn off power supply.
4. Turn on the power and water supply.
5. Press the "Ambient key to let water flow to flush the new installed filter for 15-20 minutes.
6. Filter element replacement complete.

### CAUTION

Always follow the steps below prior to replace the filters.

1. Shut off water supply. → 2. Release the pressure → 3. Turn off power supply.

## ERROR CODE GUIDE

Error Code	Issue	Description	System Action	Solution
E02	Abnormal Working	System producing water continuously for 16 hours but not stop	Stop producing water and sterilizing	Power on again after troubleshooting
E05	Abnormal Heating	Heating continuously for 1 hour but temperature not exceed 50°C	Stop heating	Power on again after troubleshooting
E07	Water Leakage	Leakage sensor detect water leakage continuously for 15s	System shut down	Replug again after troubleshooting
E09	NTC Mulfunction (hot water)	The data NTC detected exceeds the limit valve continuously for 15 s	Stop heating	1. Correct the NTC Data within the limit valve.
				2. Replug again after troubleshooting
E18	NTC Malfunction (Cold Water)	The data NTC detected exceeds the limit valve continuously for 15 s	Stop heating	1. Correct the NTC Data within the limit valve.
				2. Replug again after troubleshooting
E22	Abnormal liquid Level switch	Abnormal liquid level position	System shut down	1 .Replug again after troubleshooting
E35	Abnormal communication	Abnormal communication between display PCB and system	System shut down	1. Unplug and plug again.
				2. Wait for communication

## TROUBLE SHOOTING GUIDE

Problem	Reason	Possible Solutions
Faucet Not Dispensing Water	A. Power is off. B. Outlet solenoid valve is not open.	A. Check the power B. Check the replace the failure outlet solenoid valve.
Display no display	A. Power is off. B. Display is failure. C. Control board is failure.	A. Check the power B. Replace display C. Replace the control board.
Tank does not fill at all	1. No water enters the supply. A. The inlet 3-Way valve is closed. B. The water dispenser is unplugged. C. No water supply. D. Obstruction of the supply line to the source.	A. Open the inlet 3-Way valve. B. Plug the water dispenser into the power supply. C. Wait the water supply. D. Replace feed tube.
	2. The solenoid valve does not open. A. No power to the solenoid valve. B. The solenoid valve is damaged.	A. The tank is full and there is no water demand. B. Replace the solenoid valve.
	3. Solenoid valve do not work. A. Level switch does not work. B. The solenoid valve is damaged.	A. See point 4. B. Replace the solenoid valve.
	4. The level switch does not work. A. It is damaged and does not respond to raising and lowering the float. B. The electronic board is damaged.	A. Replace the level switch. B. Replace the electronic board.
Production is low	1. Sediment filter is blocked. A. Partial blockage of the sediment filter, comparing the inlet flow rate with the outlet flow rate of the sediment cartridge. B. Partial blockage of the solenoid valve, comparing the inlet flow rate with the outlet flow rate of the solenoid valve.	A. Replace the sediment filter. B. Replace the solenoid valve.
Water does not come out cold.	A. Customer draws cold water continuously too much. B. Cooling system is damaged or refrigerant gas has been lost. C. The cold water tank thermostat is damaged.	A. Continuous cold water volume is 4.7L. B. Repair or replace the cooling system. C. Replace the cold water tank thermostat.
Water does not come out hot.	A. Customer draws hot water continuously too much. B. The heating element is damaged. C. The hot water tank thermostat is damaged.	A. Continuous hot water volume is 1.4L. B. Replace the heating element. C. Replace the hot water tank thermostat.
Noise in system	A. Pipeline vibration. B. The pump is idling.	A. Fixed the tubing. B. Check the pump flow.

## TECHNICAL SPECIFICATION

Product	KENT Perk Star In-built RO Purifier Water Dispenser
Product Code	111173
Product Generic Name	RO Water Purifier
Colour	Smoky Grey
Applications	Suitable for Purification of Brackish/Tap Water/Municipal Corporation Water.
Weight	33 Kg
Purification Production Rate	40 L/hr.*
Storage Capacity	22 litres (12L normal, 8L cold, 2L hot)
Body Material	ABS Food Grade Plastic/Stainless Steel
Mounting	Wall-mounting/Under-the-Counter/ Cooler Installation
Dimensions (mm)	452 (L) × 400 (W) × 1400 (H)
Recovery Rating (Min.)	40%
Reject Water Generation (Max.)	60%
Maximum Operatable Feed Water TDS	1500 mg/liter
Filter Cartridge	Sediment filter, Carbon filter, RO Membrane, UF filter
Operating Pressure (Min./Max.)	0.3 kg/cm <sup>2</sup> (0.0344 MPa) - 4.0 kg/cm <sup>2</sup> (0.3792 MPa)
Operating pH Min./Max.	6.5 - 8.0
Maximum Duty Cycle	200 L/day
Membrane Type	Thin Film Composite RO
Booster Pump Voltage	24 V DC
Wattage	1000 W
Power Supply	Single Phase 230 V AC, 50 Hz, Class I
IP Rating	IPX1

\* Treatment capacity tested for tap water having TDS level of 1500 ppm at room temperature.