

TATA
swach[®]

ULTIMA

SILVER RO

WATER PURIFIER



**THE RO+UV
WATER PURIFIER**

USER MANUAL

Contact us :

Toll Free Number: 1800-2-585858

Email: tataswach@tatachemicals.com

Visit: www.tataswach.com





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Welcome Note

Dear Customer,

Congratulations for bringing home the new **Tata Swach Ultima Silver RO!**

Being the health minister of your home it is your conscientiousness to safeguard your family from water-borne diseases.

The new Tata Swach Ultima water purifier includes the advanced RO+UV technology and Special Silver Safety™ which acts as a shield of purity. Its user-friendly features like Double-i-Care™ indicators, Modern Snap-Button fitment and Zero-contamination concealed storage tank ease your **Mission Swach Jal** by consistently providing clean and pure drinking water for your family.

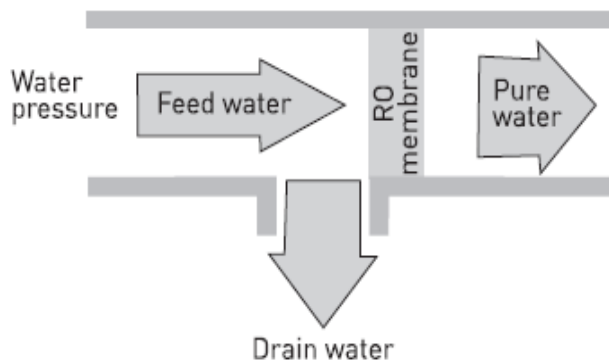
This user manual will help you know your Tata Swach Ultima Silver RO Water Purifier. For any assistance, we are just a call away @ 1800-2-585858

Tata Swach Team

To fully understand the technology of Reverse Osmosis, it is a must to understand normal osmosis. Osmosis is a natural process that occurs in all living things. For instance, osmosis permits water and nutrients absorption through the root system of plants; similarly, nutrition is assimilated from blood to cells in human bodies. So, if a semi-permeable membrane separates a dilute solution and a concentrated solution, pure water will flow from dilute to the concentrated side and will try to balance the concentrations on both sides. This phenomenon is called Osmosis.

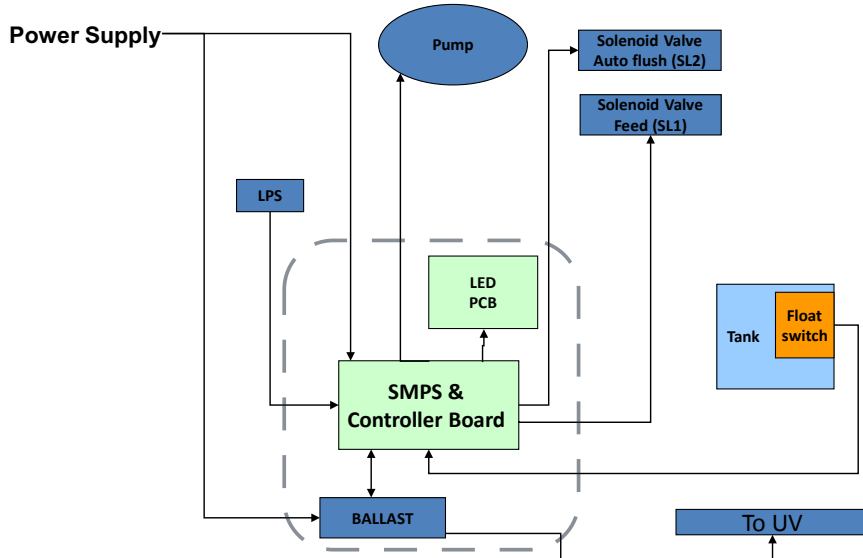
The RO membrane is not permeable to dissolved salts and only pure water can move across a RO membrane. If pressure is applied to the concentrated solution side, the flow of water across a membrane can be reversed. This phenomenon of moving pure water across a membrane from a high TDS solution is called as Reverse-Osmosis.

Hence in Reverse Osmosis, as the water exerts pressure on a semi-permeable membrane, the purified (or permeate) part enters through the pores of the membrane, while the rejected (or concentrate) is diverted to the drain. When the diameter of the pores is as low as 0.0001 microns, pure water and a little quantity of minerals (sodium, potassium, calcium, and magnesium, etc) can pass through; while other substances (such as dissolved solids, bacteria, viruses, metals, pesticides, chemical products, etc) are rejected during the process. This gives you clean and safe drinking water for consumption.



3**PACK CONTENTS :**

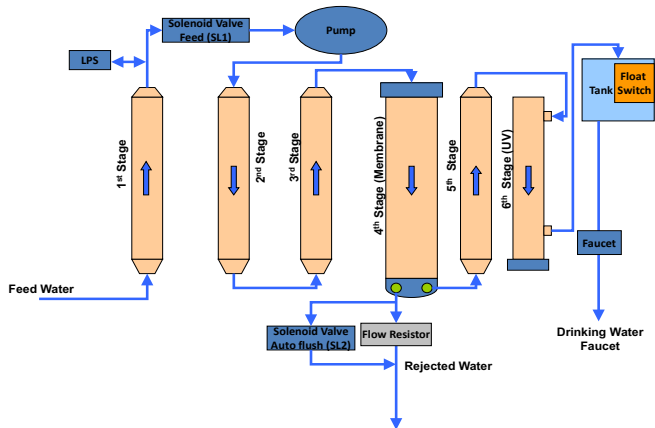
1. Tata Swach Silver RO Purifier
2. 1 RO Membrane
3. User Manual
4. Installation accessories:
 - 2 Self Tapping Screws
 - 2 Plastic Anchor Plugs
 - Flexible Pipe, 1/4" OD
 - Ball Valve
 - Adaptor (to mount Ball Valve)

4**ELECTRONIC CIRCUIT DIAGRAM :**

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PURIFICATION PROCESS DIAGRAM :

Water Flow diagram of **ULTIMA**



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6 STAGE PURIFICATION :

Stage 1: Sediment Filter Cartridge (Coarse)

This is the first filtration process which reduces/removes impurities from the inlet water. These impurities may be particles such as dust and sediments which are above 10micron in size. The life of first sediment filter depends upon the inlet water quality. If this cartridge chokes, the low pressure switch will be activated and the Double-i-Care™ indicator will show a fault indication.

Recommended replacement cycle: 6 months*

Stage 2 : Bacteriostatic Granular Activated Carbon (GAC) with Nano Silver Impregnation technology

This GAC Cartridge reduces chlorine, bad taste and odor from the inlet water. It also reduces volatile organic compounds and pesticides from water. The Nano-silver impregnation technology used in this cartridge ensures improved bacteriostatic performance for the entire life of the carbon capacity. This Special Silver Safety™ of the bacteriostatic GAC greatly reduces the chance of bio-fouling and hence increases the life of carbon cartridge.

Recommended replacement cycle: 6 months/6000Ltr⁺

Stage 3 : Sediment Filter Cartridge (Fine)

This is the third filtration process which reduces/removes finer impurities from the inlet water which may have passed through the earlier two stages. These impurities may be particles such as dust and sediments which are above 5 micron in size.

Recommended replacement cycle: 6 months / 6000Ltr[#]

Stage 4 : RO Membrane

This is the heart of your Tata Swach Silver RO Water Purifier. This National Science Foundation (US)- NSF certified membrane has fine pores as low as 0.0001 micron in size to reduce water contaminants such as dissolved salts, pesticides, heavy metals and water borne micro-organisms such as virus, bacteria etc.

100% dry membrane that comes with your system maximizes shelf life and is put in your system at the time of installation.

Recommended replacement cycle: 2 years[^]

Stage 5 : Bacteriostatic Granular Activated Carbon (GAC) with Nano Silver impregnation technology

This Post Carbon GAC cartridge imparts bacteriostatic property to the purified water and enhances the taste of water.

Recommended replacement cycle: 1 year/ 12000 Ltr⁺⁺

Stage 6 : Ultra Violet Purification

The UV module safeguards against the microbiological impurities that can be present in the water. Ultraviolet purification deactivates most of the protozoa, bacteria and viruses by damaging the genetic code which renders them harmless as they cannot reproduce themselves. The system will be shutdown in case the lamp fails or the lamp life is over. The UV module used in the RO system is better than the one set in BIS standard (IS-14724).

Recommended replacement: UV lamp fault indication/7000 hrs.

* If this cartridge chokes sooner than the recommended replacement cycle, it is advisable to install a pre-filter (available separately at a cost)

+ The life of GAC cartridge depends upon the organics, chlorine, etc present in the input water supply. Under standard test conditions the life is measured as 6000 liters with 2 ppm chlorine water passing through the cartridge.

The life of 3rd stage sediment filter depends upon the input water quality. Standard test conditions have ISO coarse A4 dust in water which is passed through the cartridge for 6000Liters at a pressure of 60psi.

[^]Under standard test conditions of running the system at 10psi input pressure, TDS upto 750 PPM, turbidity less than 5 NTU and temperature of 25°C. Depending upon the inlet hardness and TDS levels the membrane may need to be replaced earlier than 2 years.

++ The life of GAC cartridge depends upon the organics, chlorine, etc present in the input water supply. Under standard test conditions the life is measured as 12000 liters with 2 ppm chlorine water passing through the cartridge.

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ADVANCED FEATURES OF YOUR TATA SWACH ULTIMA SILVER RO WATER PURIFIER:







Purification rate	15.0 Liters/hour **
Auto Flush Mechanism	Automatic Membrane Protection
Auto Low pressure cut-off	Automatic system switch off below 5 psi pressure in input water to avoid dry running of booster pump
Inlet water switch off mechanism	Blocks inlet water supply when no power is available to the system or system is not purifying.
UV Error sense	UV lamp damage or fault condition and UV lamp life is over
Special Silver Safety™	Nano Silver Impregnation technology which imparts longer life to cartridges
Double i- Care indicators™	Provides intelligent information through its advanced indicators
Zero Contamination Storage Tank	Saves you from the hassle of cleaning the tank
Stylish faucet tap	To match your modern lifestyle
Advanced Snap button fitment	Screw-less front opening of the purifier makes servicing easy as it avoids dismantling the unit
Voltage Spike Guard	Protects against power fluctuation

**As per standard test conditions. 10psi input pressure and 750ppm TDS at 25degC.

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DOUBLE-i-CARE INDICATORS

Introduces you to advanced/new era of modern & useful indications in an easy-to-understand way:

S.No.	Application	Condition	LED Indication		
			Mnemonic	Color	Status
1	UV Lamp	UV Lamp Working		Blue	ON
		UV Lamp Life about to Over (at 6700 hrs till 7000 hrs)		Red	Blinking
		End of UV Lamp life (After 7000 hrs). System shutdown		Red	ON
		Lamp Fault (Filament Break). System shutdown		Red	ON
2	System Fail-safe mode	Low Pressure/1st stage filter choke. System shutdown		Red	ON
3	2 nd and 3 rd cartridge life	90% Cartridge life over		Red	Blinking
		Replace cartridge immediately		Red	ON
4	Call for service	Every 6 months		Red	ON
5	Storage Tank	Tank Filling		Blue	Blinking
		Tank Full		Blue	ON
6	System Power	Power ON		Green	ON

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TECHNICAL SPECIFICATIONS:

Product	TATA SWACH ULTIMA SILVER RO
Applications	Suitable for purification of tap water upto 2000ppm TDS and hardness below 500ppm
Purification Capacity	Upto 15L/hr**
Body Material	ABS
Type	Wall Mounted
Dimensions(HxWxD in mm)	537 x 420 x 168
Inlet water pressure	Minimum 5 psi, Maximum – 35 psi.
Inlet water temperature	2° C to 49° C

Stages	Sediment, Pre-carbon, Sediment, RO, Post-carbon, UV
UV lamp wattage	11W
Auto-flushing system	Yes
Weight	11.5 Kgs
Tank Volume	7 Liters
Membrane Type	TLC™ (Thin Layer Composite)
Booster Pump voltage	24V DC
Mains voltage	160-270V AC

**As per standard test conditions. 10 psi input pressure and 750ppm TDS at 25degC.

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GENERAL INSTRUCTIONS

While our Service Technicians are trained to follow the installation safety guide, it is imperative that you are aware of them

1. Match the packaging list with the items in the box
2. Always ensure that the Tata Swach Silver RO purifier is installed by a trained technician
3. Tata Swach Silver RO purifier must be wall-mounted
4. Do not install the purifier directly above an electric socket
5. Ensure you use the plug provided with the purifier and do not change it unless recommended by Company's service technician
6. The length of the water inlet hose must be shorter than 3 meters to ensure sufficient pressure is available to the machine.
7. Always connect only with cold/normal water inlet only. Do not use with hot water.
8. Do not confine water purifier in a cabinet
9. Input water pressure needs to be between 5 PSI and 35 PSI. In case it is more than 35 PSI, you need to use a "pressure reducing valve" and in case it is less than 5 PSI, you need to use a "pressure booster pump". Either can be bought from the market or from the Company technician at an additional cost.
10. Inlet water TDS should not exceed 2000 ppm. Hardness should not exceed 500 ppm.
11. Ensure the inlet, outlet and drain connections are properly connected and that the drain point is not blocked.

12. Avoid sharp bends in the connecting pipes ensuring inlet pipe and reject water pipe has free water flow path.
13. Avoid direct exposure to sunlight or humidity and ensure sufficient ventilation
14. Ensure waste/reject water pipe is connected to a drain point and water from reject water pipe is never consumed.

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INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT YOUR TATA SWACH ULTIMA SILVER RO IS INSTALLED BY A TATA SWACH TECHNICIAN ONLY

Pre-Installation Requisites:

1. 220V single phase AC connection not more than 2m away from the point of installation of purifier. The wire length supplied with the system is 2m
2. Raw water supply with ½" nipple not more than 3m away
3. Drain for rejected water not more than 3m away
4. Space on the wall as per dimensions of the purifier
5. Wall/plane surface for mounting two screws and holding the machine.

Installation Instructions

1. Turn-off the main water supply before accessing the nipple for connecting the ball valve and adaptor.
2. Connect the adaptor to the nipple and thread in the ball valve to the adaptor. Make sure Teflon tape is applied to arrest any leakages from the threads. Connect the ball-valve with the pipe provided.
3. Remove the front cover of the purifier by pushing the snap button on top. Take out both the GAC cartridges one-by-one and use the pipe attached to the ball-valve to flush for 30 sec with water. After flushing, connect it back in to the system.
4. Connect the pipe to the inlet marked on the purifier. In case you choose to install additional pre-filter (available at an additional cost), connect the pipe to inlet of this pre-filter and connect the outlet of pre-filter to inlet of the purifier.

5. 100% dry RO membrane comes sealed in a pack (and not pre-fitted) with your system to maximize shelf life. Unpack and install the RO membrane.
6. Plug in the power supply and check for any leakages from any of the connectors or pipes. If leakage, then refit. If there is no leakage, close the front cover of the purifier.
7. Wait for a few minutes for the system to auto-flush and start filling the concealed storage tank.
8. Drain out first 15 to 20 liters of purified water from the storage tank.

Your Tata Swach Ultima Silver RO is now ready for use. Familiarize your family members with operation and maintenance of the system.

If away from home :

If the purifier is not going to be used for more than 2 weeks, shut off the system and drain the stored water. Also, turn off the inlet water adapter valve.

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SAFETY INSTRUCTIONS:

Electrical Safety

These safety instructions must be read carefully to ensure your safety and prevent property damage.

1. Ensure that the local voltage accords with the system voltage to prevent electric shock or fire.
2. Do not use a damaged power cord or plug, or a loose outlet.
3. Do not unplug by pulling the cord or handle the plug with wet hands. This may result in electric shock or fire.
4. Do not bundle the power cord tightly together, as it may cause damage.
5. If the cord or plug is wet, unplug the unit and let it dry completely before subsequent use.
6. Unplug the unit before repair, inspection, or replacement to prevent any damage.
7. Do not plug into an outlet or power strip that is being used by several other appliances. Use a separate outlet for the unit to prevent fire.
8. Shut the main water supply valve and unplug the power cord when not using for a long time.

9. Do not attempt to repair the power cord yourself. Electric shock or fire may occur as a result.
10. Remove any dust or water particles on the plug. Never use benzene or gasoline to clean the plug. Electric shock or fire may occur as a result.
11. Do not move the product by pulling the electrical cord.
12. Do not clean the system with wet cloth when power is on. Use a moist cloth to clean the external surface of the purifier.

Operation Safety Instructions

1. If water leaks from the product, close the ball valve and call the customer service.
2. If the unit makes a strange noise or you notice an odd smell, unplug immediately and call the customer service
3. Do not place candles, cigarettes or any other flammable objects on and around the purifier.
4. If you have not consumed water from the Tata Swach Silver RO purifier for more than 2 days, drain the water from storage tank and refill for consumption.
5. Periodical cartridge replacement is a prerequisite for clean water. Use Tata Swach genuine (with Tata Swach logo) purifier products to maintain expected product lifespan and performance.
6. Flushing is necessary after any cartridge replacement.
7. Do not expose the unit to direct sunlight and high humidity environment. The optimal room temperature for the unit is 4°C-50°C.

What is the storage capacity of my Tata Swach Ultima Silver RO?

Tata Swach Ultima Silver RO has tank volume of 7ltrs. The process of filling the tank is fully automatic and when you take water out of the tank, the purification process automatically starts and refills the storage tank.

What is the purification rate of my Tata Swach Ultima Silver RO?

Tata Swach Ultima Silver RO can purify water upto 15 ltr/hr. However time taken to purify water depends upon the life of filters, the input water pressure, TDS and other impurities present in water.

Which consumables require periodic replacement?

Consumables such as the two Sediment Filter cartridges, Pre and Post GAC cartridges, RO membrane and UV lamp need periodic replacement depending upon the end-of-life indication, service schedule or fault indication as shown on display panel. Please note that the life of the consumables is dependent on the input water quality.

What should I do when there is no purified water in the tank?

In case there is no purified water in the tank; you need to first check for any red indication on the Double-i-Care™ indicator. Please call Tata Swach Toll-free number 1800-2-585858 for change of cartridges or any other assistance required.

How long is the stored water in the Tata Swach Ultima Silver RO safe to drink?

It is advised to drain out the stored water if not consumed within two days.

How can I use the rejected water?

It is not recommended to use reject water for any kind of consumption. However you can use it for gardening or cleaning floors.

What should I do if any part of purifier gets broken?

Please call the Tata Swach Toll-free number 1800-2-585858. Our technician will visit your house and guide you on the repairs required. There will be a nominal visiting charge and all replacements shall be on a chargeable basis

Can I open and service my Tata Swach Ultima Silver RO?

It is not recommended to open and service the purifier yourself. Call our customer care if you face any issue which requires servicing or opening the purifier.

What should I do if the output water tastes unusual?

This might be because of one or more of the following reason

- Water is stored for too long in the storage tank. Please drain the stored water and fill fresh water.
- The filters/membrane need to be replaced. Call Tata Swach customer care and get replaced or cleaned
- The input water quality has changed. This will lead to a sudden change in the output water taste. Please call the Tata Swach customer care to get your system checked.

What should I do if the purification is taking more time?

This might be because of one or more of the following reason

- The ball valve may not be open fully- Please ensure that ball valve is open completely so that the water flow is not restricted
- The incoming water line or the ball valve is choked because of debris in the incoming water. You can ask your plumber to check if this is the case.
- The temperature of input water might have dipped drastically(this will happen rarely)
- The filters may be choked or the membrane needs replacement

What should I do if the storage tank is not getting filled?

This might be because of one or more of the following reason

- Check if the ball valve is kept open
- Check if the system power is ON.
- Check if any of the indications are blinking RED or solid RED
- Check for any clogging in the incoming water line. A RED indication will be there to show low pressure if this is the case.
- Check for leakages in the purifier and if found, call the Tata Swach Toll-free number: 1800-2-585858

Your new Tata Swach Ultima Silver RO water purifier is warranted against material defects arising from workmanship for a period of 12 months from the date of invoice by the first end user, subject to following conditions:

1. During this Warranty period, TATA CHEMICALS LTD (TCL) or its Authorized Service Provider (ASP) will replace or repair any part of the Tata Swach Silver RO water purifier, that in the opinion of TCL or its ASP, arise due to faulty material or workmanship (i.e. manufacturing defects)
2. Consumables like Sediment Filter, Carbon Filter and Membrane are input water quality dependent hence not covered under warranty.
3. The product's plastic body is not covered under Warranty and hence, it must be handled with care to guard against breakage during transit and usage.
4. The customer will notify TCL customer care promptly about any defects noticed and give the ASP adequate opportunity to inspect, test and remedy them, for which the customer will deposit the purifier if necessary with the company's service centre along with original invoice, in the city where the product was purchased. Product so deposited for Warranty examination must be shipped freight prepaid. TCL will be entitled to repair/replace the defective part and retain the replaced part.
5. This Warranty is void if the unit is not installed by ASP and also if not operated under normal municipal/well water conditions or is subjected to the temperature above 35°C.
6. This warranty is void if any kind of repair or alteration is done by customer or unauthorized service provider or for failures resulting from the lack of proper maintenance or faulty electrical conditions or non-usage of Tata Swach genuine spare parts.
7. Input water pressure needs to be between 5 PSI and 35 PSI. In case it is more than 35 PSI, you need to use a "pressure reducing valve" and in case it is less than 5 PSI, you need to use a "pressure booster pump". In case consumer chooses not to install the required, any replacement of damages parts due to fluctuating input pressure shall be on payable basis.

8. TCL or its ASP shall not be held liable for claims exceeding the cost of repair of the defects in workmanship
9. This Warranty Agreement shall not be interpreted to render TCL or its ASP liable for injuries or damages of any kind - direct, consequential or contingent to persons or property.
10. TCL 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 Majeure : including but not limited to Acts of God like floods, earthquakes, etc or transportation strikes, labour disputes with outside suppliers or any other conditions beyond the control of TCL or its ASP.
11. TCL 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 TCL, since TCL or its ASP does not have any control over the quality of input water, maintenance of purifier and storage and consumption conditions of purified water.
12. This Warranty Agreement excludes all products/component parts or damage to any part of this water purifier which, in the opinion of TCL or its ASP, have been subjected to misuse, misapplication, negligence, alteration, accident or operation contrary to TCL instructions, or incompatibility with accessories not installed by TCL or its ASP, or that have been repaired with component parts other than those manufactured by or obtained from TCL or its ASP. In all such cases regular charges will apply. This limited Warranty does not include service to diagnose a claimed malfunction in this unit.
13. TCL reserves the right to alter or improve design and specifications of Tata Swach Silver RO at any time, without any contingent obligations to prospective buyers or owners of the products previously sold.
14. Any disagreements and obligations based upon the purchase of Tata Swach Silver RO products and thereby imposed on TCL or its ASP shall be governed by and construed according to the laws of India and subject to the jurisdiction of Mumbai Courts only.
15. In case of product related queries or complaints, kindly report the same on our Toll Free no. 1800-2-585858 or mail us at tataswach@tatachemicals.com.

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WARRANTY CARD (to be filled by service provider)

Company Copy	Customer Copy
<p>Product Details Model name Model Serial No.</p> <p>Customer Details Name Telephone No. Address Email</p> <p>Purchase Details Retailer Name, City Invoice No. Invoice Date Invoice amount</p> <p>Installation Date</p> <p>Service Providers Details Name Address phone no.</p> <p>Customer Signature Service Provider's Stamp</p> <p>Marketed By: Tata Chemicals Ltd.</p>	<p>Product Details Model name Model Serial No.</p> <p>Customer Details Name Telephone No. Address Email</p> <p>Purchase Details Retailer Name, City Invoice No. Invoice Date</p> <p>Installation Date</p> <p>Service Providers Details Name Address phone no.</p> <p>Customer Signature Service Provider's Stamp</p> <p>Marketed By: Tata Chemicals Ltd.</p>



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