

AMI DELUXE
UNDER-THE-COUNTER RO PURIFIER



Instruction Handbook for Installation, Operation and Maintenance.



APPLIED MEMBRANES, INC.
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Mineral RO™ TECHNOLOGY
Removes Dissolved Impurities
Retains Essential Minerals
Multiple Purification
RO + UF + TDS Control

**The
Best Tasting
Pure Water**

Applied Membranes, Inc. is an ISO 9001:2015 QMS Certified Company



Welcome to AMI

Dear Customer,

To begin with, allow us to thank you for your trust in **AMI** water purification. We take pride in our reputation for product quality and industry proven performance. We are certain that your decision to own an **AMI Deluxe** Mineral RO™ water purifier will go a long way towards keeping you and your family in good health. We are confident that you will be satisfied with its performance and that it will serve your need for safe and clean drinking water without any compromise.

This guide will help you in getting the best out of your water purifier. Please go through this booklet to familiarize yourself with its operation and maintenance.

Best Wishes

Applied Membranes, Inc.

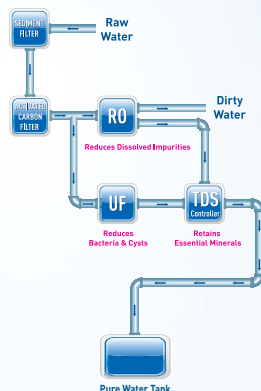
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AMI TECHNOLOGY – A Breakthrough in Water Purification*

Presenting the **AMI Deluxe Mineral RO™** Water Purifier based on state-of-the-art technology, for purer and healthier water.

At the heart of the **AMI Deluxe Mineral RO™** water purifier is a Reverse Osmosis membrane having a pore size as small as 0.0001 microns that reduce even dissolved impurities (salts and heavy metals) as well as harmful micro-organisms (bacteria, viruses etc.) and even converts hard water to sweet and purer drinking water. It also incorporates a UF process to give double protection from harmful micro-organisms. **AMI Deluxe Mineral RO™** also allows the user to control the Total Dissolved Solids (TDS) level of purified water.



Features of AMI Deluxe Mineral RO™

- Multiple Purification by RO and Hollow Fibre UF Membrane effectively filters out bacteria, viruses and cysts.
- Adjustable TDS Control System facilitates TDS adjustment in purified water.
- Fully automatic operation with auto-on and auto-off function.
- Tamper-proof RO/UF Membranes fused inside membrane housing.
- Suitable for purification of Brackish / Tap Water / Municipal Water Supply.
- 3.2 gallons optional storage tank that makes purified water available on demand.
- Fully automatic operation, with auto-on and auto-off function.
- Use of push-fit fittings to prevent leakage and maintenance free performance.

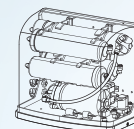
Items in the Box

- | | |
|---|----------------|
| 1. AMI Deluxe Mineral RO™ Water Purifier | : 1 Qty. |
| 2. 3-Way Connector | : 1 Qty. |
| 3. S.S. Ball Valve | : 1 Qty. |
| 4. Food Grade Pipe ¼ inch (Blue) | : 98.4 inches |
| 5. Food Grade Pipe ¼ inch (White) | : 196.8 inches |
| 6. Instruction Manual | : 1 Qty. |
| 7. Screws & Plastic Inserts | : 2 Qty. each |
| 8. Hydrostatic Storage Tank 3.2G | : Optional |
| 9. Sticker Center Drill | : 1 Qty. |

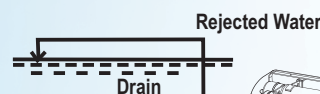
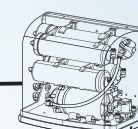
Important Instructions



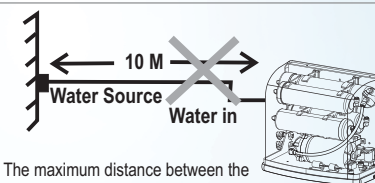
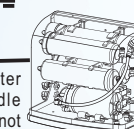
Avoid exposure to direct sunlight and installation in damp areas.



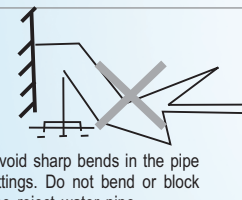
Make sure that the temperature of water entering the purifier is within 10-40° C.



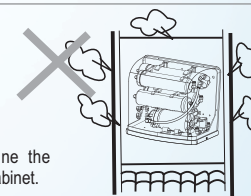
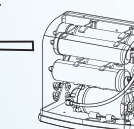
Make sure that the reject water connection to the drain saddle assembly is fully inserted and not leaking.



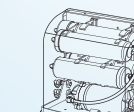
The maximum distance between the water source and the purifier should not be more than 3 meters.



Avoid sharp bends in the pipe fittings. Do not bend or block the reject water pipe.

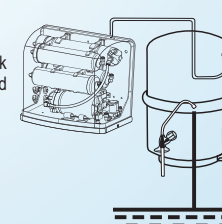


Do not confine the purifier in a cabinet.

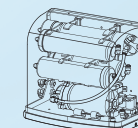


In case of not using the purifier for more than two days, kindly switch off the power supply and drain the storage tank.

To keep the storage tank clean, it should be drained once in 30 days.



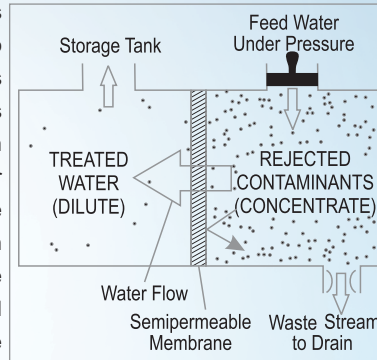
Use Genuine AMI spares for optimum performance.



Do not try to service the purifier on your own. Instead, call a service technician for help.

Reverse Osmosis Process

The Reverse Osmosis process, also known as hyper filtration, is the finest filtration process known to date. The process ensures reduction of particles as small as ions from a solution. Reverse Osmosis uses a semi-permeable membrane to reduce salts from potable / brackish water. In Reverse Osmosis, water pressure applied to the concentrated side forces the process of osmosis into reverse. Under enough pressure, treated water is "squeezed" through the membrane from the concentrated side to the diluted side. Salts dissolved in water as charged ions are repelled by the RO membrane. The rejected impurities on the concentrated side of the membrane are washed away in a stream of waste water and thus do not get accumulated as in a traditional filter.



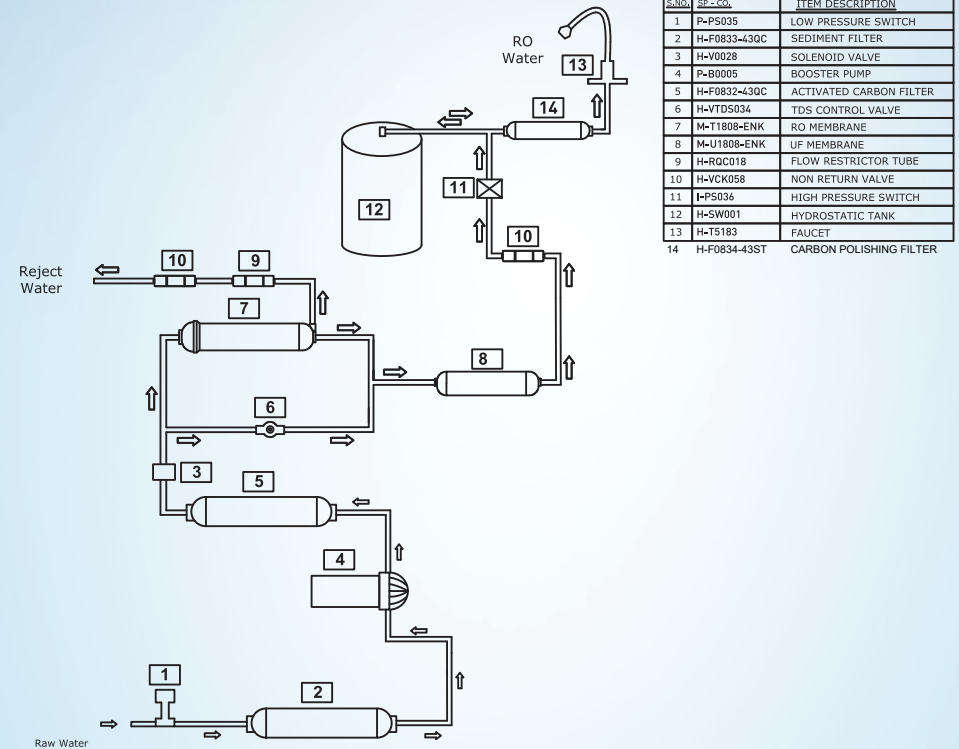
UF Process

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

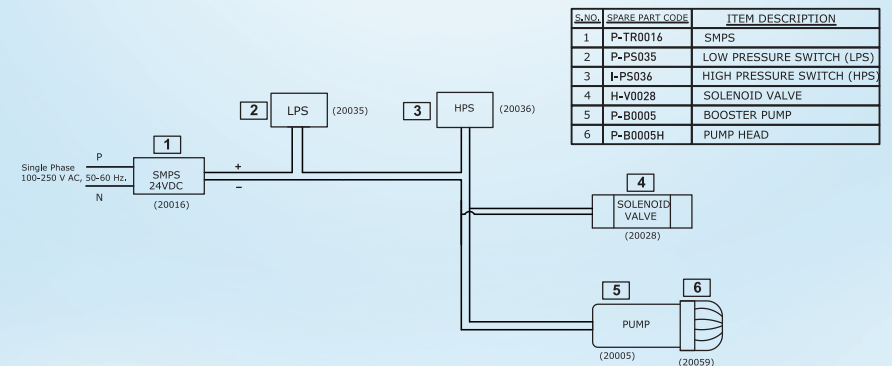
Automatic Operation

- The purifier automatically shuts off when the storage tank is full.
- The purifier automatically restarts when water level drops below the maximum.
- The purifier does not start when inlet water supply pressure falls below 4.267 (psi/cm²).
- The purifier does not allow any water rejection in absence of electricity or when tank is full.

Water Flow Diagram



Electrical Circuit Diagram



Installation Instructions

The **AMI Deluxe Mineral RO™** Water Purifier is a product of advanced technology which ensures safe and clean drinking water. The purifier is easy and convenient to install.

Recommended Site Preparations:

- Single Phase 100-250 V AC, 50-60 Hz connection not more than 118.1 inches away from the point of installation of purifier.
- Raw water supply with ½ inch nipple not more than 118.1 inches away.
- Drain for rejected water not more than 118.1 inches away.
- Space as per dimensions of the purifier.
- Wall/plain surface for mounting two screws and holding the machine.
- The system and installation needs to comply with state and local laws and regulations.

Specific Instructions:

- **AMI Deluxe Mineral RO™** is an under-the-sink purifier. Make sure that it is only mounted on a wall. Avoid installation on wooden and metallic stands.
- For optimum performance and minimum inlet pressure required, ensure that the raw water supply tank is at least 10 ft above the level at which the purifier is installed.
- It is preferable to install the purifier near a sink so that faucet can be mounted on the sink and the inlet and reject water lines are easily available.

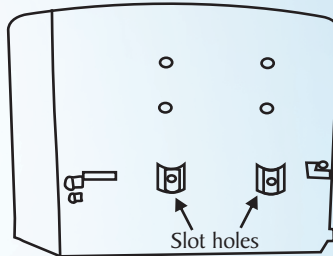


Figure 1

Installation Instructions:

- Screw in the two 10x50 self tapping screws on a same horizontal level at a distance of 7.32 inches from each other in the wall. This can be preferably done under the kitchen sink.
- Carefully hang the purifier on the wall with the help of wall mounting slot holes present on the back side of the purifier as shown in Figure 1.
- Fix the SS ball valve to the inch port of the 3-way connector.
- Connect the 3-way connector to the raw water supply as shown in Figure 2. The threaded end of the 3-way connector is fitted in line with the raw water supply. The other end can be connected to a tap or can be plugged off if not required.
- Now connect one end of the white pipe to the SS ball valve and other end to the inlet of the right most sediment filter (labeled as No. 1 in the system flow diagram) (Note: White pipe is for raw water supply).
- Drill a 1/4" hole in the drain pipe, below the sink. Install the Drain Clamp by first applying the foam gasket inside the front half of the drain saddle. Punch out the cut-out hole in the center of the pad, remove the adhesive backing, and adhere to the inside of the drain saddle, ensuring the holes are aligned. Align the hole drilled in the drain pipe with the hole in the drain saddle. Use Phillips screwdriver to tighten the clamp. Avoid over-tightening.
- Connect one end of the blue pipe to the outlet of the flow restrictor tube (labeled as No. 11 in the system flow diagram) and insert tubing from the Reject Water line to the quick connect fitting on the drain line and check the seal (Note: Blue pipe is for reject water).
- Make a drill of 0.43 inches on the top of the sink or kitchen bed where the faucet (labeled as No. 16 in the system flow chart) can be installed conveniently as per the drawing. Secure the faucet to the sink, by tightening the brass nut washer.
- Tighten the 90 degree ball valve to the tank and connect it to the outlet of the purifier as shown in the drawing.

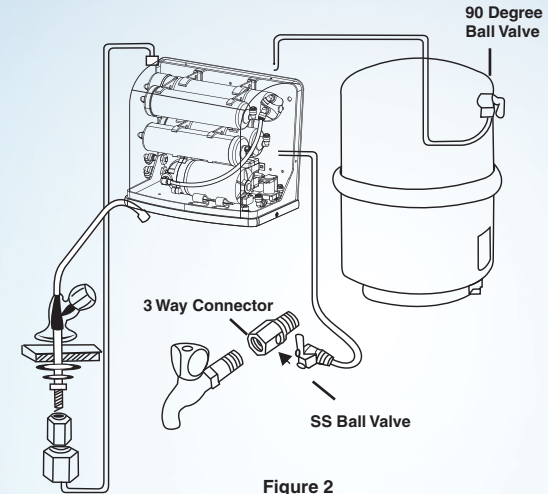


Figure 2

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 increased mineral content.
- Turning the screw of the valve clockwise results in decreased mineral content.

Starting-up the Purifier

- Switch on the power supply.
- Wait approximately for half an hour so that the storage tank fully fills up**.
- 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.

Recommended Usage of Rejected Water

Although the rejected water has a high concentration of salts, it is absolutely clean and free of impurities like chlorine, dirt, sand, etc. which are present in raw water. This rejected water usually goes down the drain but if required, can be used for

gardening purposes. It has a high concentration of salts and minerals which accelerates plant growth. Rejected water can also be used for cleaning purposes, i.e. cleaning utensils, mopping, etc.

Maintenance

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

- Replace sediment, activated carbon block and micron filter after every 12 months. It is recommended to change the Flow Restrictor when the filters are replaced.

Note: The reverse osmosis system contains a replaceable treatment component critical for the effective reduction of total dissolved solids and that product water shall be tested periodically to verify that the system is performing properly.

Replacement of spare parts are as under:

H-F0833-43QC	Inline Sediment Filter 8"
H-F0832-43QC	Inline Carbon Filter 8"
M-T1808-ENK	RO Membrane Welded 8"Housing
M-U1808-ENK	UF Membrane Housing 8"
H-RQC018	Flow Restrictor FRT 550/600
H-F0834-43ST	Carbon Polishing Filter

"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."

- Replace the RO membrane once in a year.
- If you are not going to use the purifier for a long time (in case you are on a holiday, tour or out of home), make sure that you disconnect the power supply, turn off the raw water supply and drain the storage tank.

Important Safety Instructions

- If the supply cord is damaged, it must be replaced by the original part in order to avoid hazard
- Children should be supervised to ensure that they do not play with the appliance

Technical Specifications

Product	AMI Deluxe
Product Code	HD-75DE
Product Generic Name	Water Purifier
Product Colour	White
Application	Suitable for Purification of Brackish, Tap Water, Municipal Corporation Water.
Purification Production Rate	3.96 (gal/hr.)
Body Material	ABS Food Grade Plastic
Mounting	Under-the-Counter
Product Dimensions (inches)	16.14 (L) X 8.85 (W) X 11.22 (H)
Inlet Water Pressure/Temp. (Min)	4.267 (psi/10°C)
Inlet Water Pressure/Temp. (Max)	56.893 (psi/40°C)
Filter Cartridge	Sediment, Activated Carbon, UF and Post Carbon.
Net Weight	13.7 (lbs)
Storage Capacity	3.2 (gallons)
Maximum Duty Cycle	19.8 (gal/day)
Membrane Type	Thin Film Composite RO
Booster Pump Voltage	24 V DC
Total Power Consumption	60 (W)
Input Power Supply	Single Phase 100-250 V AC, 50-60 Hz. 
IPX Numbur	IPX1

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