WaterPro® BT® Water Purification Systems









WaterPro® BT® Water Purification Systems

Features & Benefits



Attractive and durable

Thermoplastic housing.

Integral 6L storage tank

Holds RO-purified water.

Rear-mounted tank outlet valve

Releases RO-purified Type III from the storage tank.

Simply press to dispense

Press button and Type I water will dispense continuously until pressed again. Or, press and hold. Release to stop dispensing.

Removable front cover

for easy access to filter pack.

User-friendly LCD

Displays water quality, system status, and maintenance or alarm messages. The screen can be rotated up or down for easy viewing by the user.

Do-it-yourself installation

From connecting to tap water and drain to installing the Filter Pack, this system can be set up in minutes.

Visual alarms

Alert user when filter change is required, resistivity is below setpoint, and other important status reports.

Fixed volume delivery

While in auto dispense mode, a pre-set volume of Type I water may be dispensed. From 0.25 L-9.75 L in 0.25 L increments.

Quiet operation at ≤ 50 dB

at a distance of 3 1/4' (1 meter).

For changing display settings such as water quality unit of measure, resistivity setpoint, and temperature. Also for setting functions such as volume dispensed, dispensing time, flowrate calibration and tank level calibration.

Optional final filters

Two final filters are offered and attach to the dispensing valve. A Hollow Fiber Filter that removes all particles and bacteria ≥ 0.22 micron or an Ultrafilter Cartridge that removes pyrogens.

Optional UV lamp

Some models include a 185/254 nm UV lamp to remove bacteria and certain organics.

Optional remote dispenser

Some models include a remote dispense module and stand to allow WaterPro BT to be placed up to 6.5' from the dispensing location. Optional Wall Mounting Bracket allows you to optimize bench space, while having the dispenser within easy reach.

Full one year warranty





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Ordering Information



- 1-10 liters per day
- Ultrapure Type I water
- Turns any sink into an ondemand pure water station

			Manthen			
Catalog Number	Electrical Requirements		Receptacle & Plug Type	UV Lamp	Remote Dispense	Shipping Weight
9015020	115V, 60 Hz, 2A	1	North America, 115V, 15A	_	_	39 lbs. (18 kg)
9015120	115V, 60 Hz, 2A	41	North America, 115V, 15A	Yes	_	40 lbs. (18 kg)
9015030	230V, 50/60 Hz, 2A	\odot	Schuko	_	_	39 lbs. (18 kg)
9015130	230V, 50/60 Hz, 2A	\odot	Schuko	Yes	_	40 lbs. (18 kg)
9015040	230V, 50/60 Hz, 2A	<u></u>	North America, 230V	_	_	39 lbs. (18 kg)
9015140	230V, 50/60 Hz, 2A	<u></u>	North America, 230V	Yes	_	40 lbs. (18 kg)
9015060	230V, 50/60 Hz, 2A	<u></u>	British (UK)	_	_	39 lbs. (18 kg)
9015160	230V, 50/60 Hz, 2A	<u></u>	British (UK)	Yes	_	40 lbs. (18 kg)
9015070	230V, 50/60 Hz, 2A	(1)	China/Australia	_	-	39 lbs. (18 kg)
9015170	230V, 50/60 Hz, 2A	(1)	China/Australia	Yes	_	40 lbs. (18 kg)
9015080	230V, 50/60 Hz, 2A	\odot	India	_	_	39 lbs. (18 kg)
9015180	230V, 50/60 Hz, 2A	\odot	India	Yes	_	40 lbs. (18 kg)
9015220	115V, 60 Hz, 2A	11	North America, 115V, 15A	_	Yes	45 lbs. (20 kg)
9015320	115V, 60 Hz, 2A	11	North America, 115V, 15A	Yes	Yes	46 lbs. (21 kg)
9015230	230V, 50/60 Hz, 2A	\odot	Schuko	_	Yes	45 lbs. (20 kg)
9015330	230V, 50/60 Hz, 2A	\odot	Schuko	Yes	Yes	46 lbs. (21 kg)
9015240	230V, 50/60 Hz, 2A	<u></u>	North America, 230V	_	Yes	45 lbs. (20 kg)
9015340	230V, 50/60 Hz, 2A	<u></u>	North America, 230V	Yes	Yes	46 lbs. (21 kg)
9015260	230V, 50/60 Hz, 2A	<u></u>	British (UK)	_	Yes	45 lbs. (20 kg)
9015360	230V, 50/60 Hz, 2A	<u></u>	British (UK)	Yes	Yes	46 lbs. (21 kg)
9015270	230V, 50/60 Hz, 2A	(1)	China/Australia	_	Yes	45 lbs. (20 kg)
9015370	230V, 50/60 Hz, 2A		China/Australia	Yes	Yes	46 lbs. (21 kg)
9015280	230V, 50/60 Hz, 2A	\odot	India	_	Yes	45 lbs. (20 kg)
9015380	230V, 50/60 Hz, 2A		India	Yes	Yes	46 lbs. (21 kg)

*Meets ASTM Type I water standard.

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 $^{^{\}dagger}\text{Meets}$ ASTM Type III water standard with feedwater purity of 100 μs or better.

WaterPro® BT™ Water Purification Systems

Specifications



All models feature:

- · Thermoplastic housing with removable thermoplastic cover
- Dispensing valve that dispenses >0.5 liter per minute Type I water by pressing the dispense button
- 6 liter capacity RO-purified water storage tank
- Feedwater inlet tubing, 7' long, with 1/2" OD Male NPTM, BSPM or GAZ fitting and pre-filter screen
- RO reject tubing, 80" long
- 50 dB maximum noise level at a distance of 3 1/4 feet
- Distribution pump
- Continuous/intermittent recirculation
- Color LCD for display of operating modes, operating parameters, maintenance or alarm messages and tank level.
 Alarms include filter cartridge change after set time has expired or amount of water has been reached, resistivity less than setpoint, incorrect filter installation, and water detected in tank while in Flush mode
- Keypad for accessing display settings, function settings, and calibrations
- Power cord and plug
- One year warranty

Water Purification Systems.

For labs needing 1-10 liters per day, these systems deliver ultrapure Type I water. Ultrapure Type I water is ideal for many applications including instrumental trace element analysis, mixing standardized acid/base solutions, and media solutions. RO-purified Type III' water is produced and stored in the tank. A tank outlet valve, accessible from the back, provide access to RO-water which is ideal for non-critical lab applications such as reagent preparation and glassware rinsing.

UV models also feature:

• UV Lamp, 185 and 254 nanometers

Standards conformance & regulations:

- UL Standard 61010-1 (all models)
- CE Conformity marking (all models)

Optional accessories:

- 10' (3 m) clear tubing and 3/8" ID hose barb for the Type I dispensing valve
- 8 x 8 mm elbow connector and 3' (1 m) of 8 mm tubing with ball valve for the tank outlet
- Two each 1 micron Air Vent Filters
- Hollow Fiber Final Filter 9037700. See page 5
- Ultrafilter Cartridge 9037800. See page 5
- Wall Mounting Bracket 9037900. See page 5

All models require (not included):

• Filter Pack 9019200. See page 5

 $^{\star}\text{Meets}$ ASTM Type III water standard with feedwater purity of 100 μs or better.





Accessories



9019200—**Filter Pack.** Required for operation. Includes twin cartridges with pre-treatment, reverse osmosis, activated carbon and deionization filtration. Shipping weight 6 lbs. (3 kg)

9037700—Hollow Fiber Final Filter, 0.22 micron. For attachment to the dispensing valve. Non-sterile. Includes filling bell. 1 each. May not be used with Ultrafiltration Cartridge (9037800). Shipping weight 0.5 lb. (0.2 kg)

9037800—Ultrafiltration Cartridge. 1 each. For attachment to the dispensing valve. May not be used with the Hollow Fiber Final Filter (9037700). Shipping weight 0.5 lb. (0.2 kg)

9041300—UV Lamp. 185 and 254 nm. 1 each. Shipping weight 0.5 lb. (0.2 kg)

9037900—Wall Mounting Bracket. Powder-coated steel. For attaching system to a wall or other vertical surface. Hardware not included. Shipping weight 4.0 lbs. (2 kg)

9041400—Replacement Vent Filters, 1 micron. Package of 2 each filters. Shipping weight 0.5 lb. (0.2 kg)

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WaterPro® BT™ Water Purification Systems

How it Works & Type I Water Specifications

How it works.

- 1. Tap water enters the filter pack and passes through the pretreatment media. This removes large particles to protect the RO membrane
- 2. Water passes through RO membrane
- Removes inorganics, remaining organics and colloids
- Purified water (Type III permeate) is temporarily stored in the tank
- lons, particles, organic molecules and bacteria rejected by the RO membrane are sent to drain
- When dispensing mode is active, Type III water is pumped from the tank and passes by the UV lamp (on UV models). UV irradiation reduces levels of bacteria and other total organic carbons in the water
- 3. Water passes through activated carbon media
- Removes dissolved organics and chlorine
- Water enters the deionization cartridge, which exchanges hydrogen ions for cationic contaminants and hydroxl ions for anionic contaminants to produce Type I water
- **4.** Ultra-pure water passes through an **optional**:
- Optional Hollow Fiber Final Filter to remove all particles and bacteria greater than 0.22 micron
- Optional Ultrafilter Cartridge to remove pyrogens, RNases and DNases
- To maintain water quality, water throughout the system is intermittently recirculated during periods of non-use

Inlet Feedwater Requirements	
Maximum inlet pressure	≤87.0 psi (bar)
Minimum inlet pressure	≥7.3 psi (0.5 bar)
Minimum Inlet Flow rate	≥10.7 gallons/hour (40 L/hour
Temperature	5-35° C (41-95° F)
рН	4-10
Conductivity	< 2000 microseimens/cm
Fouling Index	< 10
Langelier Saturation Index	< +0.2
TOC	< 2000 ppb
Maximum Ion Concentrations	
Iron (total)	< 0.1 ppm as CaCO ₃
Aluminum	< 0.05 ppm as CaCO ₃
Manganese	< 0.05 ppm as CaCO ₃
Free Chlorine	< 1 ppm

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Type I from dispensing valve	>11.1 GPH (>0.5 L/min) at 25° C			
Type III from storage tank	Up to 0.8 GPH (3 L/hour)			
Drain Capacity	7.9 gallons/hour (30 L/hour)			
Type I Water Quality				
TOC (without UV Lamp)	<10 ppb			
TOC (with UV lamp)	<5 ppb			
Particulates (> 0.22 micron)**	<1 particulate/ml			
Bacteria**	<0.1 cfu/ml			
Pyrogens**	<0.001 EU/ml			
RNases**	<0.01 ng/ml			
DNases**	<4 pg/μl			
Type III Water Quality				
Ion rejection	>96%			
Organic rejection for MW > 200	>99%			

Bacteria and particulates

*Depending on feedwater flow rate and pressure and water level in the tank. Storage tank must be at least 10% full in order for water to be dispensed. ***With Ultrafiltration Cartridge in place.

Everything you need to succeed.

Chemical Ventilation

Fume Hoods

Filtered Fume Hoods

Ductless Enclosures

Biological Ventilation

Biosafety Cabinets

Clean Benches

PCR Enclosures

Lab Animal Enclosures

Particulate Enclosures

Powder Containment

Nanotechnology

Glove Boxes

Sample Preparation

Freeze Dryers

Evaporators

Concentrators

Cold Traps

Washers & Water

Glassware Washers

Water Purification Systems

Forensics

Fuming Chambers

Drying Cabinets

Downdraft Powder Stations

Specialized Solutions

Kjeldahl, Fat & Crude Fiber Instruments

Blood Drawing Chairs

Vacuum Desiccators

Lab Accessories & Parts

Vacuum Pumps

Remote Blowers & Exhausters

Filters & Pre-Filters

Glassware

Carts, Tables & Benches

Base Stands, Cabinets & Work Surfaces

Our promise.

You can expect straight talk from us.

A fair and honest approach to doing business. And people you can trust to do the right thing.

When you buy equipment from us, it should work the way you need it to, and if it doesn't, we will take care of it.

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