

Tap to Type II with the Most Intelligent Water System Available!



Diamond™ TII

Researchers the world over have relied on Barnstead to provide the most advanced laboratory water purification systems for over 125 years.

Introducing Barnstead's NEW Water System

The Diamond™ TII system is designed to produce water meeting and exceeding Type II standards (defined by ASTM) and Type I standards (defined by NCCLS) directly from tap water. Type II water produced by the Diamond TII can be used with confidence for many applications within the laboratory such as microbiological media preparation, buffer preparation, manufacturing chemical and biochemical reagents, purified water for clinical applications, feed for laboratory

equipment (washing machines, clinical analyzers, stability and environmental chambers, humidifiers, autoclaves, weathering test equipment instruments, hydrogen gas generators), BOD and COD analysis and feed to Type I systems like the NANOpure® Diamond™.

The flexibility this system provides is unsurpassed in the industry. Not only does the water quality exceed Type II standards with resistivities > 15 megohm-cm and TOC (Total Organic Carbon) < 15 ppb but the benefits the system provides makes it both simple to operate and easy to maintain. Water can be drawn directly from the system or from a storage reservoir. The system can be wall, bench or under the counter mounted.

The Diamond™ TII will exceed all your needs for water quality, ease of use and flexibility.

Features

- ▶ Two models available - Designed to produce either 12 or 24 Liters Per Hour flow rates.
- ▶ Single connection cartridge pack – only one connection and you're done. Installing and changing cartridges has never been easier!
- ▶ Easy to read LCD display provides important information including the:
 - a. Resistivity or conductivity of the system product water
 - b. Resistivity, conductivity or TDS (Total Dissolved Solids) of the reverse osmosis feed water and product water
 - c. Percent rejection of the reverse osmosis system
 - d. Digital pressures of the feed water, prefilter outlet and RO membrane
- ▶ Water quality you can trust with a unique flow pattern that provides Type II water directly from the Diamond TII system eliminating purity declines that occur during storage.
- ▶ The system will deliver Type II water at a flow rate of up to 1 Liter Per Minute.



Storage Reservoirs

- ▶ 30 and 60 liter cylindrical reservoirs available.
- ▶ Cylindrical reservoirs help control bacteria by eliminating sharp corners that are present in other reservoirs.
- ▶ Optional UV lamp controls bacterial growth within the reservoir.
- ▶ Optional "smart" distribution pump allows you to transport Type II water to remote locations.
- ▶ Vent filter prevents the introduction of airborne contaminants into the storage reservoir.
- ▶ Universal design allows for bench or wall mounting without additional equipment.
- ▶ Manifold allows you to distribute water to a Type I system such as the NANOpure Diamond, a dishwasher or to the optional distribution pump loop.
- ▶ Fluorinated construction to prevent recontamination of water by contact with impure surfaces.



Digital display informs you of key information and alerts you when you need to maintain the system.



Single Connection Cartridge Pack
Only one connection and you're done. Installing and changing cartridges has never been easier!



A dual wavelength UV lamp oxidizes organics to virtually undetectable levels and keeps bacteria to a minimum. The system displays an alert when the UV lamp should be changed.



Hollow-Fiber Final Filter
The easily replaceable high-surface-area absolute 0.2µm final filter requires less frequent replacement.

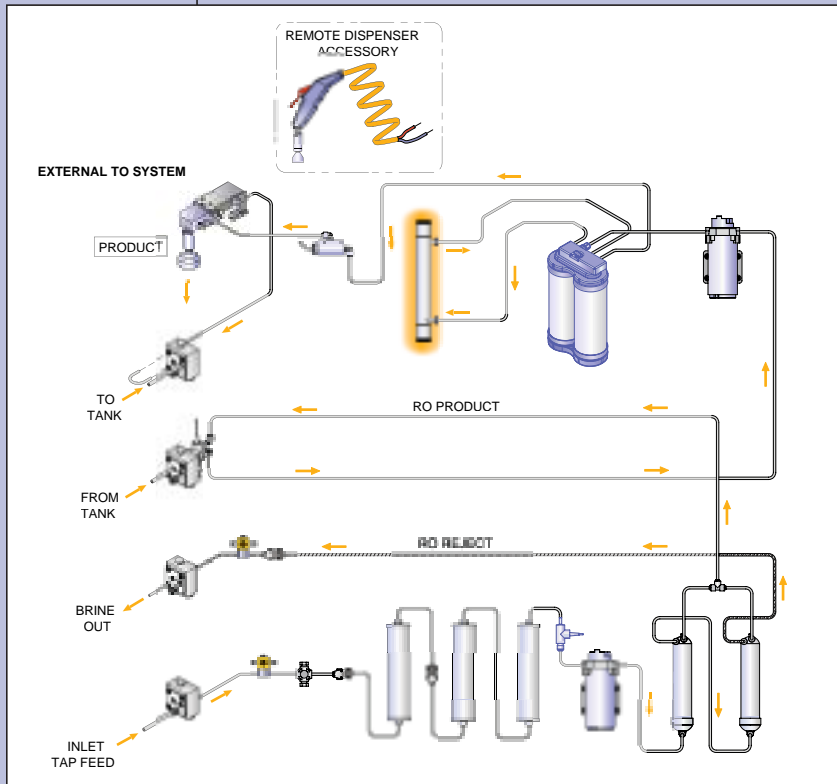
Diamond™ TII

The Most Intelligent Water System Available!

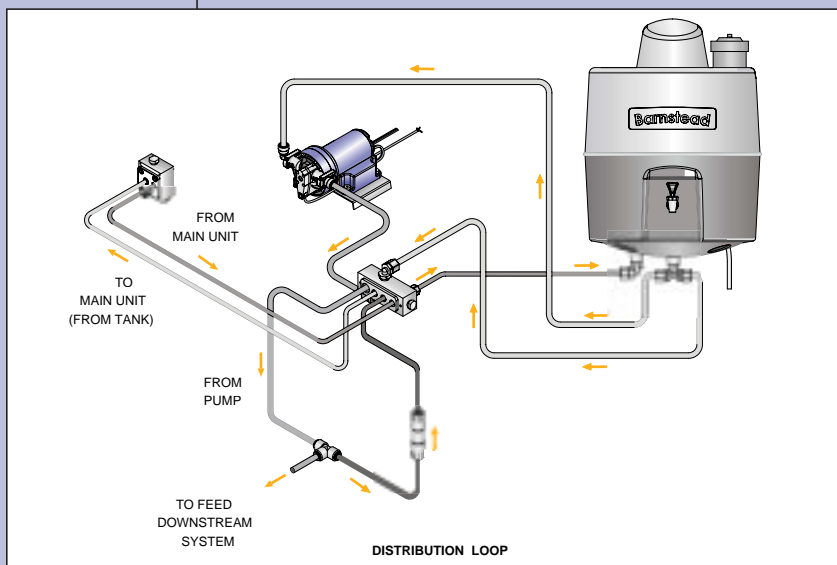
Diamond™ TII

ASTM Type II and NCCLS Type I Water Purification System

Barnstead's Diamond™ TII system is an easy-to-use tap-fed water purification system designed to provide reagent grade water that exceeds ASTM Type II, and NCCLS/CAP Type I standards. Using a thin film composite reverse osmosis membrane with three stages of pretreatment, the Diamond TII produces RO water that is then polished by a two-stage deionization process combined with UV oxidation and a 0.2 micron final filter.



Flow Diagram



Tank Flow Schematic

Product Specifications

Model #	D14031	D14041
Feed Water Requirements	≤ 600 ppm TDS (1,200 µs/cm) Temperature 4 - 40°C PH 3-10 Fouling Index <1 Pressure 30 - 100 psig (2 - 6.9 bar)	≤ 600 ppm TDS (1,200 µs/cm) Temperature 4 - 40°C PH 3-10 Fouling Index <1 Pressure 30 - 100 psig (2 - 6.9 bar)
Reverse Osmosis Flow	12 LPH ±15% @ 25°C Feed Water Temp.	24 LPH ±15% @ 25°C Feed Water Temp.
Reverse Osmosis Reject Flow/ % Recovery	1.2 LPM ±0.2 LPM 10 - 20% Recovery	1.2 LPM ±0.2 LPM 20 - 40% Recovery
Product Flow Type II Water	Up to 1 LPM	Up to 1 LPM
R/O Purity	Typical 95% - 98% Rejection Ions >99% Particles >99% Organics (> 300 mw)	Typical 94% - 97% Rejection Ions >99% Particles >99% Organics (> 300 mw)
System Purity-Drawn from Main Dispense	ASTM Type II/NCCLS Type I Res. - > 15 megΩ-cm (<0.067 µs/cm) Organics - < 5 ppb Bacteria - < 1 cfu/ml Sodium - < 1 ppb Silica - < 3 ppb Chlorides - < 1 ppb	ASTM Type II/NCCLS Type I Res. - > 15 megΩ-cm (<0.067 µs/cm) Organics - < 5 ppb Bacteria - < 1 cfu/ml Sodium - < 1 ppb Silica - < 3 ppb Chlorides - < 1 ppb
Shipping Weight	45 lbs.	45 lbs.
Operating Weight	54 lbs	54 lbs
Agency Approvals	CSA, CuL and CE	CSA, CuL and CE
Voltages	90 - 240 Volts	90 - 240 Volts

Ordering Information

Model #	Description	Shipping Weight Lb. (kg)
D14031	Diamond TII 12 LPH	45 (20.4)
D14041	Diamond TII 24 LPH	45 (20.4)
D14061	Diamond TII 30-Liter Storage Reservoir	25 (11.3)
D14062	Diamond TII 30-Liter Storage Reservoir with UV Option	25 (11.3)
D14063	Diamond TII 30-Liter Storage Reservoir with Distribution Pump	30 (13.6)
D14064	Diamond TII 30-Liter Storage Reservoir with UV Option and Distribution Pump	30 (13.6)
D14071	Diamond TII 60-Liter Storage Reservoir	40 (18.1)
D14072	Diamond TII 60-Liter Storage Reservoir with UV Option	40 (18.1)
D14073	Diamond TII 60-Liter Storage Reservoir with Distribution Pump	45 (20.4)
D14074	Diamond TII 60-Liter Storage Reservoir with UV Option and Distribution Pump	45 (20.4)

CSA, CuL, CE

Accessories

Model #	Description
AY1406X1	UV Lamp Assembly and Lamp for Storage Reservoirs
AY1406X2	"Smart" Distribution Pump
AY1406X3	UV Lamp Assembly & Distribution Pump
LMX31	Replacement UV Lamp Storage Reservoir
LMX13	Replacement UV Lamp Diamond TII
D502137	Diamond TII Cartridge Pack
D502138	Diamond TII Start Up Kit
D502113	Pre-filter 5 Micron
D502114	MPS Cartridge
D502115	Extruded Carbon Cartridge
FL1265X1	Membrane Diamond TII
25001	Replacement Reservoir Vent Filter

CSA, CuL, CE



Barnstead's FREE W.A.T.E.R. (Water Analysis to Evaluate and Recommend) service makes the selection of a water purification system simple

Customize YOUR SYSTEM TO YOUR budget, laboratory application, and capacity. Call Barnstead Customer Service at 1-800-553-0039 and ask for your FREE W.A.T.E.R. Kit today! (Part # SSW2117.)

Tap to Type II With One System



BI Barnstead International

Your Lab Starts Here

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