



**Thermo Scientific
Barnstead TII
Pure Water Systems**

Pure water. Pure research. Total confidence.



Thermo Scientific Barnstead TII Pure Water Systems

Ideal for any daily application needs for pure water, our TII™ is an intelligent and flexible system for producing ASTM Type II water directly from tap water – exceeding industry standards with resistivity up to 15 Megohm-cm and TOC values below 5 ppb.

Multi-Step Purification

Combines pretreatment, reverse osmosis, deionization, UV oxidation, and filtration in a single system that is easy to use and maintain.

Beyond Type II Purity

Our exclusive flow pattern and unique water storage and recirculation system continuously maintain stored water contaminant levels far below ASTM Type II standards, including ultra-low TOC.

Intelligent Operation

Smart controls monitor critical system data and automate operation ensuring maximum water quality.

Range of Applications

Ideal for a wide range of Type II water applications including microbiological media and buffer preparation, manufacturing of chemical and biochemical reagents, and clinical applications, as well as to feed ultrapure water systems like our Thermo Scientific Barnstead Nanopure.

Proven Quality and Reliability

For more than 125 years, Barnstead pure water systems have been a trusted source for science and industry. Now the most comprehensive portfolio of water systems is sold as Thermo Scientific and enhanced by our worldwide capabilities delivering expertise, value and quality.



Preserves Water Quality During Storage

TII delivers flexible storage with advanced features to maintain the highest water purity.

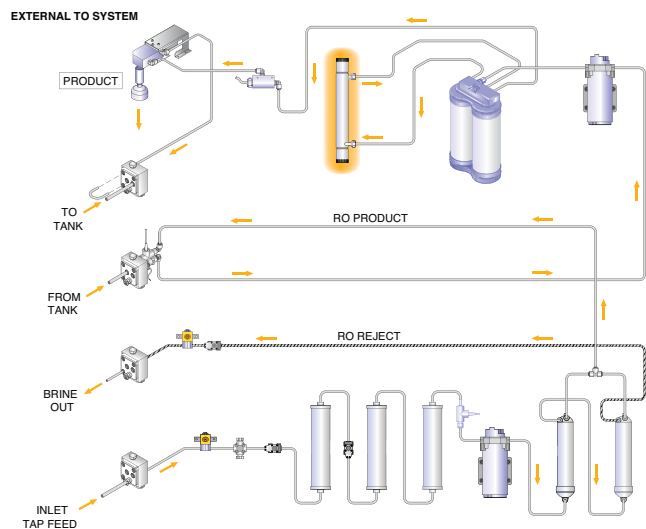
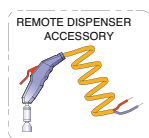
Featuring an exclusive flow pattern that recirculates water between the unit and storage reservoir, our TII eliminates purity degradation that can occur during storage. An integrated UV lamp controls bacteria and ensures organic-free water on demand.

- >> **Fluorinated PE Reservoirs**
Eliminates leaching of organic materials for unparalleled protection from contamination.
- >> **Flexible Dispensing**
Easily dispenses from the unit or the tank. Direct dispensing from unit offers options of volumetric or timed dispense.

- >> **Advanced Design**
Rounded corners and dual wave-length UV light removes bacteria within tank and vent filter blocks airborne contaminants from entering the reservoir.
- >> **Smart Distribution Pump**
For efficient operation and lower maintenance, the integrated pump operates at level required by usage; lower voltage until water is needed and flow/pressure increases as needed.



Exclusive Flow Pattern
Our TII delivers the highest water purity over competitive units and further reduces TOC levels through continuous recirculation of tank water past the UV lamp and through the cartridge pack.



Advanced Controls, Maximum Performance

Sophisticated multifunctional display provides real-time information on water quality and other system performance and diagnostics.



System Status at a Glance

Green/Yellow/Red indicator lights simplify operation with detailed status and alert information:

- >> **Green** = Normal operation
- >> **Yellow** = Preventative maintenance is recommended; push display to get easy-to-read details
- >> **Red** = System alarm; easily diagnosed via display information
- >> **Dispense Button:** Automatically delivers 250 ml to 60 L of water from the unit
- >> **Multifunction Main Menu:** Intuitive, push-button controls monitor critical system data and deliver easy access to:
 - System alarm information
 - System set-up data
 - Real-time operational readings (water purity and RO feed/product, % rejection RO, digital pressure feed, prefilter outlet and RO membrane, cartridge status and reservoir liters remaining)

Multilingual display provides information in English, Spanish, German, and French.

Free Water Analysis with Thermo Scientific H₂O SELECT

Our unique H₂O SELECT™ testing program provides expert analysis of your feed water. Based on the results, we will identify the best water system for your application. You will receive a comprehensive report including a summary report, system recommendations and estimated life expectancy of consumables.

**Note: H₂O SELECT program may not be available in all countries. Please check with your local sales representative.*



Exceptional Quality, Intelligent Operation

The TII features a smart design and flexible storage that maximize water quality.

>> Range of Options

Available in 12 and 24 liters/hour production rates with 30 L or 60 L storage tanks for your application needs.

>> Multifunctional Display

Monitors water at all points including feed water, RO water, final product water and measures resistivity and temperature.

>> Real-Time Monitoring

System diagnostics monitor vital system parameters and alert users of any potential issues or when preventative maintenance is needed.

>> Flexible Display

Removable display can be mounted up to 10 feet (3 meters) away from the unit for added flexibility.

>> Space-Saving Options

Place it on or under the bench or mount it on the wall (mounting brackets included).

>> UV Lamp Integration

Monitor tank UV lamp operation on display to ensure bacterial free and low organic water.



◀ **Quick Cartridge Change**
Disconnects easily for simple and fast cartridge replacement.

Dispensing Options ▶
Use the Thermo Scientific Accudispense to remotely dispense programmed volumes of water or the remote dispenser to deliver water up to 8 feet (2.5 meters) away.



Thermo Scientific Barnstead TII Pure Water Systems

For a complete operational system, please select a water system, start-up kit and storage reservoir when ordering.

Model No.	D14031	D14041
Description	Barnstead TII - 12 LPH	Barnstead TII - 24 LPH
Feed Water Requirements		
Water Quality	Potable Tap Water	
Total Dissolved Solids	< 600 ppm TDS (1,200 µs/cm)	
Temperature	4°C - 40°C	
pH	3-10	
Fouling Index	< 1	
Pressure	30 psig - 100 psig (2 bar - 6.9 bar)	
System Performance		
Product Water Quality	ASTM Type II/CLSI Type I	
Type II Water Product Flow Rate	Up to 1 LPM	
Resistivity	> 15 meg Ω-cm (< 0.067 µs/cm)	
Organics	< 5 ppb	
Bacteria	< 1 cfu/ml	
Sodium	< 1 ppb	
Silica	< 3 ppb	
Chlorides	< 1 ppb	
Reverse Osmosis		
Reverse Osmosis Product Flow Rate	12 LPH ± 15% @ 25°C	24 LPH ± 15% @ 25°C
Reverse Osmosis Reject Flow Rate	1.2 LPM ± 0.2 LPM	1.2 LPM ± 0.2 LPM
Recovery	10% - 20% Recovery	20% - 40% Recovery
RO Purity	Typical 95% - 98% Rejection	Typical 94% - 97% Rejection
	<i>Ions</i>	
	<i>Particles</i>	> 99%
	<i>Organics (> 300 mw)</i>	> 99%
General System Specifications		
Shipping Weight	45 lbs. (20.4 kg)	
Operating Weight	54 lbs. (24.5 kg)	
Agency Approvals	CSA, CuL and CE	
Voltage	90 V - 240 V, 47-63 Hz	

Storage

Description	30 L	60L
Storage Reservoir	D14061	D14071
Storage Reservoir with UV Lamp	D14062	D14072
Storage Reservoir with Distribution Pump	D14063	D14073
Storage Reservoir with UV Lamp and Distribution Pump	D14064	D14074



Accessories

Model No.	Description
D502138	Barnstead TII Start-Up Kit
D502137	Barnstead TII DI Cartridge Pack*
D502113	1µ Pre-Filter*
D502114	MPS Cartridge*
D502115	Extruded Carbon Cartridge*
D3750	0.2µ Final Filter
LMX13	TII UV Lamp
LMX31	Storage Reservoir UV Lamp
AY1403X3	Nanopure Pump Interlock Cable
D13661	Accudispense
D11981	Remote Dispenser
AY1137X1	Printer, 120 V or 240 V

* Included in start-up kit

Expertise, Value and Quality with Thermo Scientific Barnstead Nanopure

Our complete line of water purification technologies include solutions for your most critical and everyday application needs: From tap water pretreatment, deionization, distillation, filtration, and reverse osmosis to storage reservoirs and other accessories.

Our Nanopure® solutions deliver expertise, quality and value with advanced purification technologies, precise volume dispensing controls and system monitoring in a flexible, compact design. Four application-specific models can be customized with our unique Thermo Scientific Durapack cartridge pack that best suits your feed water and research needs.



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