# Ultra-pure Water-Purifier

The integrated system efficiently produces both pure water and ultrapure (UP) water from tap water.

**Advanced Controller:** The system utilizes a cutting-edge 32-bit microprocessor, ensuring high operational speed and low power consumption. Designed with advanced EMC technology, it boasts strong interference immunity, minimal noise, robust surge resistance, and reliable, stable, long-term operation.

**Washing and Circulation Functions:** Features both automatic and manual washing and circulation to prolong the service life of the American Dow RO membrane, minimizing bacterial contamination.
Conductivity Meter: Equipped with a resistance constant of 0.01 cm^-1 and a temperature sensitivity of ±0.1°C, it offers automatic temperature compensation.

**Intelligent Control System:** Fully intelligent control supports multiple users, independent evaluation, and secondary factory and user password protection. System settings are


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password-protected to prevent unauthorized changes.

**Online Diagnosis:** Capable of online malfunction diagnosis (for source water, pre-pure water, and UP water), it offers warnings or automatic shutdown and clear indications.
Water Storage: Water can be stored in both a pressure barrel and a water tank, with the system displaying the stored water volume to meet various user needs.

**Safety and Design:** The main power supply is 24VDC (low voltage) for safety compliance. The ABS engineering plastic housing and water-power separated structure make it suitable for humid environments, protect users from harm, and reduce radiation. The pure water pipe and joint have NSF certification.
Terminal Treatment Options: Various terminal treaters can be selected according to operational requirements, effectively removing contaminants such as endotoxins, nucleases, ultratrace organics, endocrine disruptors (EDS), and VOCs, meeting diverse experimental needs.

**User Interface:** Features a 7.0-inch color capacitive touchscreen with an animated menu, switchable between Chinese and English. The user-friendly system includes an IR remote control, one-key ON/OFF, one-key pure water and UP water intake, and one-key circulation and washing.

**Water Intake:** Supports qualitative and quantitative water intake at fixed times, system time settings (Y/M/D/Hr/Min), timed standby (0-60min), and timed shutdown (0-24h).
Data Management: Real-time data monitoring with online inquiry capabilities. A USB host interface allows exporting historical alarm and water intake records.

**Specifications**

Name: Trace Analysis
Product Type: LWP-P3 TA Series
Models: LWP-P3-10TA, LWP-P3-20TA, LWP-P3-30TA, LWP-P3-40TA
Application Range: Suitable for graphite furnace atomic absorption spectrometry (GFAAS), gas chromatography-mass spectrometry (GC-MS), high-performance liquid chromatography (HPLC), plasma mass spectrometry (ICP-MS), ion mass spectroscopy (IC), TOC analysis, and solid phase extraction (SPE).
System Process: PF+PP+RO+DI+UV+DI+UV+TF


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Influent Requirement: Urban tap water with TDS < 200 ppm, 5-45°C, 1.0-4.0 Kgf/cm² (external softener recommended if TDS > 200 ppm).

**UP Water Indexes**

Resistivity: 18.2 M?.cm @ 25°C
Particulate Matter (PM >0.2?m): <1 cfu/ml
Bacteria: <0.1 cfu/ml
Total Organic Carbon (TOC): <3 ppb
Endotoxin: <0.002 Eu/ml
Ribonuclease (RNases): N/A
Deoxyribonuclease (DNases): N/A

**DI Water Indexes**

Conductivity: <1 µS/cm @ 25°C (single-stage RO + DI), ion rejection rate: 96-99% (new RO membrane), organic rejection rate: >99% (MW > 200 Dalton)
Heavy Metal Ion: <0.1 ppb
Water Yield (25°C): 10/20/30/40 L/H
Instantaneous Water Yield: 1.5-2.0 L/min (with pressure barrel)
Water Outlets: 2 (DI water, UP water)
Size/Weight: 500×400×580 mm / approximately 38 kg
Power Supply/Power/Noise: 220V 50Hz / 50-80W / <50 dB
Standard Configuration: Host (including 1 set of purified column), external 12L pressure barrel, accessory bag


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