

### THE REVOLUTIONARY NEW WAY TO MEASURE FREE CHLORINE!

# ULTRAMETER II TO SERVICE OF CENTRAL PROPERTY OF THE PROPERTY O

Conductivity

Resistivity

**TDS** 

**ORP** 

Free Chlorine (FC<sup>E</sup>)

рН

**Temperature** 





and 4PII

CONDUCTIVITY
RESISTIVITY
TDS
TEMPERATURE

CE



MYRON L<sup>®</sup> COMPANY

Water Quality Instrumentation Accuracy • Reliability • Simplicity

. . . Since 1957

# ULTRAMETER II

Advanced Design · Superior Performance

Choice of KCl, NaCl, and 442™ Natural Water Standards

ORP mV to ppm free chlorine conversion (6PFC<sup>E</sup>)

pH/ORP Sensor protective cap (6PFC<sup>E</sup>)

Four-digit display for full 9999 readings, with autoranging capability up to 200 mS/200 ppt

Powerful microprocessor based surface-mount circuitry

Display prompts for simple pH calibration

**Real Time Clock** 

Memory for 100 readings with Date & Time Stamp

Factory calibrations stored in microprocessor



## ULTRA-FAST ULTRA-EASY ULTRA-POWERFUL

Since 1957, the Myron L® Company has designed and manufactured highly reliable analytical instruments for a wide variety of applications. Thousands of professionals around the world rely every day on the performance of our instruments. Demanding uses range from boiler water testing to ultrapure water control to medical instruments for artificial kidney machines.

We are proud of the trust our handheld instruments and monitor/controllers have earned in the past. Our product line has evolved to a new level of outstanding performance and value in analytical instruments: the Ultrameter II series. While priced like affordable single-parameter instruments, the Ultrameter II does the job of three, four or even six instruments.

#### **NEW! FC<sup>E</sup> FAC Function**

The Myron L® Company FCE function reports FAC quickly and accurately by measuring ORP, the chemical characteristic of chlorine that directly reflects its effectivity, cross referenced with pH. Both DPD kits and colorimeters may tell the user the FAC value of the sample in the test tube, but since the chemistry of that sample is quite different from the source water being analyzed, the results are imprecisely related to actual disinfection power. The Myron L® Company FCE function measures the real, unaltered chemistry of source water, including moment-to-moment changes in that chemistry.

**Accuracy You Can Trust** 

Both Ultrameter II models deliver performance of ±1% of reading (not merely full scale). This high level of accuracy has been achieved through advanced four-electrode conductivity cell technology, a unique pH/ ORP sensor and powerful microprocessor-based circuitry. With displayed values up to 9999, the full four-digit LCD ensures resolution levels possible never before such affordable instruments. Factory calibrated with NIST traceable solutions, Ultrameter II may be supplied both certification traceability and NIST traceable solutions for definitive calibration.

Fast and accurate in the laboratory, both Ultrameter II models are rugged enough for daily in-line controller checks in hostile process applications.

#### **Innovative Engineering**

The Ultrameter II is a prime example of how high-tech engineering can greatly simplify and streamline a task. Whether in the lab, industrial plant, or in a remote field location, merely:

- 1. Fill the cell cup
- 2. Push a parameter key

3. Take the reading

Temperature compensation and range selection are both rapid and automatic. The Ultrameter II is a true one-hand operation instrument.

#### **Easy to Calibrate**

All calibrations are quickly accomplished by pressing the ▲ or ▼ keys to agree with our NISTtraceableStandardSolution. When calibration is necessary, display prompts simplify pH calibration and make sure the correct buffer is being used. Plus, all parameters (excluding factory-set temperature) have an internal electronic setting that can be used for field calibration and as a check on pH/ORP sensor life.

#### **Advanced Features**

- 3 solution standards for greatest accuracy in diverse applications
- Fully automatic temperature compensation
- User adjustable temperature compensation (up to 9.99%/°C) which also allows TC to be disabled for applications requiring non-compensated readings.
- User adjustable conductivity/ TDS conversion ratio for greater accuracy when measuring solutions not contained in the microprocessor.
- Auto-shutoff maximizes the life of the single 9V battery to more than 100 hours/5000 tests.
- Non-volatile microprocessor provides data back-up, even when the battery is changed. This assures all calibrations and memory data will be retained.
- Extended life pH/ORP sensor is user replaceable in the field.

#### **Multiple Applications**

- $\cdot \text{Irrigation Water} \cdot \text{Hydroponics}$
- · Laboratories · Wastewater
- · Reverse Osmosis
- Deionization
- · Cooling Towers
- Environmental
- Desalination
- Fountain Solutions
- · Homeland Security

#### BENEFITS DESIGNED TO SAVE YOU TIME & MONEY



Wireless Data Transfer

The 6PFC<sup>E</sup> measures a dynamic range of free chlorine concentrations wider than the range of colorimetric test kits.

Easily transfer stored readings to Macintosh and PC platforms with the optional bluDock™ accessory package.

Ample memory provides increased flexibility to record and store 100 separate readings.

Real Time Clock with Date & Time Stamp allows you to maintain the integrity of each individual reading.

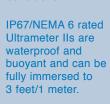
The advanced four-electrode cell for conductivity/ resistivity/ TDS eliminates polarization, allowing greater accuracy and stability with minimal maintenance.



The pH/ORP sensor chamber provides protection to a unique porous liquid-junction.

The large capacity KCI reservoir guarantees extended life.

A custom LCD helps simplify calibration and operation by using annunciators and prompts to indicate various conditions.







<u>Features</u>					
Ultrameter II™ Models	4PII	6PFC <sup>E</sup>			
	Conductivity	Conductivity			
	TDS, Resistivity	TDS, Resistivity, pH			
	Temperature	ORP, Free Chlorine Temperature			
ORP mV and Free Chlorine		•			
Autoranging	•	•			
Adjustable Temp. Compensa	ation •	•			
Adjustable Cond/TDS rat	tio •	•			
Memory (100 readings)	•	•			
Date & Time Stamp	•	•			
pH Calibration Prompts		•			
Low battery indicator	•	•			
Auto-off	•	•			

#### **Specifications**

-				
Display	4 Digit Liquid Crystal Display			
Dimensions: LxWxH	196 x 68 x 64 mm/7.7 x 2.7 x 2.5 inches			
Weight	352 g/12.4 oz.			
Case/conductivity cell material	VALOX*			
Cell capacities	pH/ORP: 1,2 ml/0.04 oz. Cond/TDS/Res: 5 ml/0.2 oz.			
Power	9V alkaline battery			
Battery life	>100 hours (5000 readings)			
Operating/storage temperature	0 – 55°C/32 – 132°F			
Protection ratings	IP67/NEMA 6 Waterproof to 1 meter/3 feet			
* ® Sabic Innovative Plastics				

#### **Parameters**

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Ranges	Conductivity 0–9999µS/cm 10–200mS/cm in 5 autoranges	TDS 0–9999ppm 10–200ppt in 5 autoranges	Resistivity $10 \text{K}\Omega - 30 \text{M}\Omega$	<b>рН</b> 0—14рН	orp ±999mV	Free Chlorine 0.00–9.99ppm 350≤ORPmV<725 and 0.0≤pH<9.9 725≤ORPmV<825 and 0.0≤pH<8.9	Temperature 0-71°C 32-160°F
Resolution	0.01(<100µS) 0.1(<1000µS) 1.0(<10mS) 0.01(<100mS) 0.1(<200mS)	0.01(<100ppm) 0.1(<1000ppm) 1.0(<10ppt) 0.01(<100ppt) 0.1(<200ppt)	0.01(<100KΩ) 0.1(<1000KΩ) 0.1(>1MΩ)	±0.01pH	±1mV	0.01ppm	0.1°C/F
Accuracy	±1% of reading	±1% of reading	±1% of reading	±0.01 pH*	±1 mV	<1.00ppm ±0.3ppm* ≥1.00ppm ±0.2ppm	±0.1°C
Auto Temperature Compensation	0–71°C 32–160°F	0-71°C 32-160°F	0–71°C 32–160°F	0–71°C 32–160°F	_	0–71°C 32–160°F	_
Adjustable Temperature Compensation to 25°C	0–9.99%/°C	0-9.99%/°C	0-9.99%/°C	_	_	_	_
Conductivity/TDS Ratios Preprogrammed	KCl, 442™**, NaCl	KCI, 442™**, NaCl	_	_	_	_	_
Adjustable Conductivity/TDS Ratio Factor	0.20-7.99	0.20-7.99	_	_	_	_	_

<sup>\*± .2</sup> pH in presence of RF fields ≥ 3V/m and >300MHz

#### Accessories

bluDock™ Accessory Package includes bluDock™, Macintosh/PC application software for downloading data and printed instructions. MODEL: BLUDOCK

Certificates confirming the NIST traceability of an Ultrameter II are available (must be specified when placing instrument order). MODEL: MC

**Conductivity Standard Solutions are** necessary to maintain accuracy and for periodic calibration of conductivity/TDS parameters. All Standard Solutions are NIST traceable for your complete confidence. RECOMMENDED VALUES: KCI-7000 (7 mS), 442-3000 (TDS), or NaCl-14.0 (mS) available in 2 oz/59 ml, 1 qt/1 L, and 1 gal/3,8 L.

pH Buffers are necessary to maintain accuracy and for periodic calibration of pH and ORP parameters. Calibration with pH 7 Buffer is especially important. All pH 4, 7, and 10 Buffers are NIST traceable and are available in 2 oz/59 ml, 1 qt/1 L, and 1 gal/3,8 L.

#### pH Sensor Storage Solution

Available in 2 oz/59 ml, 1 qt/1 L, and 1 gal/3,8 L.

MODEL: SS20Z, SSQ and SSG

Certificate of NIST traceability for pH Buffer or Conductivity Standard Solutions are available (must be specified when placing solution order).

MODEL: SC

Hard protective case (small)

MODEL: UPP

Hard protective case (kit) with three buffers (pH 4, 7, and 10), one pH/ORP storage solution, and two standard solutions, (KCI-7000 and 442-3000). All bottles are 2 oz/59 ml. MODEL: PKUU (Replaces PKU)

#### Soft protective case is

constructed of padded Nylon and features a belt clip for hands-free mobility. MODELS: UCC (Blue) and UCCDT (Desert Tan)

#### Replacement pH/ORP sensor

user-replaceable, features a unique/porous liquid-iunction.

MODEL: RPR





Founded in 1957, Myron L® Company is one of the world's leading manufacturers of water quality instruments. Because of our policy of continuous product improvement, changes in design and the specifications in this brochure are possible. You have our assurance any changes will be guided by our product philosophy: Accuracy, Reliability, Simplicity.



#### **Limited Warranty**

All Myron L Ultrameter II have a Two (2) Year Limited Warranty. The pH/ORP sensors have a Six (6) Month Limited Warranty. Warranty is limited to the repair or replacement of the Ultrameter II only, at our discretion. Myron L® Company assumes no other responsibility or

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NOW AVAILABLE! **ORP SENSOR** 

CALIBRATION

www.myronl.com

<sup>\*\*442</sup> Natural Water Standard™ Myron L® Company