



PL-600

### PL-600, Bench Top pH mV/Temp/Meter, Complete Kit

- Microprocessor based designed. Simultaneous display pH & Temperature, C/F switchable.
- Compensation by ATC or MTC. Backlight for operating conveniently anytime.
- Stores up to 64 readings which you can download to your computer via R232 output.
- All reading feature stamp meeting GLP guidelines.
- pH electrode (glass, GL-42)
- Temperature probe (Pt 100)
- Electrode holder.
- Buffer solution 4 & 7
- AC/DC adaptor
- Instruction manual, Gift box.

**Option:** Model: PL-700 magnetic stirrer with clamp for holding ph electrode & temp. probe.

Model	PL-600		
	pH	mV	Temp.
<b>Range</b>	0-14pH	-2000 - (+2000)	-0.5 - 105°C
<b>Accuracy</b>	±0.01pH+1digit	0.1% mV/F.S	±0.2°C+1digit
<b>Resolution</b>	0.01pH	1mV	0.1°C
<b>ATC</b>	0-100°C		
<b>Memory data logging</b>	64 reading		
<b>Output</b>	RS-232		
<b>Power</b>	DC 9V by AC adapter		
<b>Dimensions</b>	200x160x65mm		
<b>Weight</b>	650g		



### WA-2017SD, pH/ORP, DO, CD/TDS, Salt, SD Card, Real time Data logger, Water Quality, Patent

- One meter for multi purpose operation: PH/ORP, CD/TDS, Dissolved Oxygen, Salt measurement. • pH: 0 to 14.00 pH, ORP: ± 1999 mV.
- Conductivity: 200 uS/2 mS/20 mS/200 mS. • Dissolved oxygen: 0 to 20.0 mg/L. • Salt: 0 to 12 % salt (% weight). • Optional PH, ORP, CD/TDS/Salt, Dissolved Oxygen and ATC probe. • DC 1.5V (UM-3, AA) x 6 PCs or DC 9V adapter in. • PH meter function can select PH or ORP. • PH measurement can select ATC or manual temperature adjustment. • PH measurement can make the auto calibration for pH 7, pH 4 and pH 10 or other value.
- Conductivity measurement can select uS/mS or TDS • Conductivity measurement can select Temp. Coefficient of measurement solution.
- ATC for the conductivity measurement. • Dissolved use the polar graphic type oxygen probe with temperature sensor, high precision measurement for Dissolved Oxygen (DO) and temperature measurement. • Heavy duty dissolved oxygen probe, probe head can connect with BOD bottle. • DO use the automatic Temp. compensation. • DO meter build in "% SALT" & "Mountain Height" compensation value adjustment. • Separate probe, easy

for operation of different measurement environment. • Wide applications: water conditioning, aquariums, beverage, fish hatcheries, food processing, photography, laboratory, paper industry, plating industry, quality control, school & college, water conditioning. • Real time SD memory card Datalogger, it Built-in Clock and Calendar, real time data recorder, sampling time set from 1 sec to 8 hour 59 min. 59 sec. • Manual datalogger is available (set the sampling time to 0), during execute the manual datalogger function, it can set the different position (location) No. (position 1 to position 99). • Innovation and easy operation, computer is not need to setup extra software, after execute datalogger, just take away the SD card from the meter and plug in the SD card into the computer, it can down load the all the measured value with the time information (year/month/date/ hour/minute/second) to the Excel directly, then user can make the further data or graphic analysis by themselves. • SD card capacity: 1 GB to 16 GB.

- LCD with green light backlight, easy reading. • Can default auto power off or manual power off. • Data hold, record max. and min. reading. • Microcomputer circuit, high accuracy. • Power by UM3/AA (1.5 V) x 6 batteries or DC 9V adapter. • RS232/USB PC COMPUTER interface.

<b>Model</b>	<b>WA-2017SD</b>	
<b>Circuit</b>	Custom one-chip of microprocessor LSI circuit.	
<b>Display</b>	LCD size : 52 mm x 38 mm LCD with green backlight ( ON/OFF ).	
<b>Measurement</b>	PH/ORP, Conductivity/TDS(Total Dissolved Solids), Dissolved Oxygen, Salt	
<b>Datalogger Sampling Time Setting range</b>	Auto	1 sec to 8 hour 59 min. 59 sec. @ Sampling time can set to 1 second, but memory data may loss.
	Manual	Push the data logger button once will save data one time. @ Set the sampling time to 0 second. @ Manual mode, can also select the 1 - 99 position (Location) no.
<b>Memory Card</b>	SD memory card. 1 GB to 16 GB.	
<b>Advanced setting @ main setting</b>	* SD memory card Format * Set clock time * Set sampling time * Auto power OFF management * Set beep Sound ON/OFF * Decimal point of SD card setting * Set temperature unit to °C or °F * Set DO salt% compensation value * Set DO height ( meter ) compensation value * Set DO height (feet) compensation value * Set CD temperature compensation factor * Set CD to TDS or TDS to CD, CD only * Set pH manual Temp. compensation value	
<b>Data Hold</b>	Freeze the display reading	
<b>Memory Recall</b>	Maximum & Minimum value	
<b>Sampling Time of Display</b>	Approx. 1 second	
<b>Data Output</b>	RS 232/USB PC computer interface. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug * Connect the optional USB cable USB-01 will get the USB plug.	
<b>Power Supply</b>	* Alkaline or heavy duty DC 1.5 V battery (UM3, AA) x 6 PCs, or equivalent	
	* DC 9V adapter input. (AC/DC power adapter is optional)	
<b>Power Current</b>	Normal operation (w/o SD card save data and LCD Backlight is OFF): Approx. DC 14 mA	
	When SD card save the data and LCD Backlight is OFF): Approx. DC 37 mA	
	* If LCD backlight on, the power consumption will increase approx. 12 mA	
<b>Operating Temperature</b>	0 to 50°C (32 to 122°F)	
<b>Operating Humidity</b>	Less than 85% R.H.	
<b>Weight</b>	489 g/1.08 LB.	
<b>Dimension</b>	177 x 68 x 45 mm, (7.0 x 2.7x 1.9 inch)	
<b>Accessories Included</b>	* Instruction manual: 1PC * Hard carrying case, CA-06: 1PC * Conductivity/TDS probe, Salt probe CDPB-03: 1PC	
<b>Optional Accessories</b>	* PH electrode: PE-03, PE-11, PE-01, PE-06HD, PE-04HD, PE-05T, PE-03K7 * ATC (Automatic Temperature Probe): TP-07, * pH 7 buffer solution: PH-07, * pH 4 buffer solution PH-04 * Conductivity/TDS probe, Salt probe CDPB-03 * 1.413 mS Conductivity Standard Solution CD-14 * Oxygen probe OXPB-11 * Spare Probe head with Diaphragm set OXHD-04 * Probe-filling Electrolyte OXEL-03 * ORP Electrode ORP-14 * SD memory card ( 1 GB ) * SD memory card ( 2 GB ) * AC to DC 9V adapter. * USB cable, USB-01. * RS232 cable, UPCB-02. * Data Acquisition software,SW-U801-WIN.	

**Electrical Specifications (23±5°C):**

**PH/mV**

<b>PH Electrode</b>	Optional, Any PH electrode with BNC connector.	
<b>Measurement</b>	<b>PH</b>	0 to 14 PH
	<b>mV</b>	-1999 mV to 1999 mV
<b>Input Impedance</b>	<b>10<sup>12</sup> ohm</b>	
<b>Temperature Compensation for pH measurement</b>	<b>Manual</b>	0 to 100°C, be adjusted by push button on front panel.
	<b>Automatic (ATC)</b>	With the optional temperature probe ( TP-07 ) 0 to 65°C.
<b>pH Calibration</b>	PH7, PH4, and PH10, 3 points calibration ensure the best linearity and accuracy.	
<b>Optional probe and accessories</b>	* PH electrode PE-03, PE-11, PE-01, PE06HD, PE-04HD, PE-05T, PE-03K7 * ATC (automatic temperature probe) TP-07 * pH 7 buffer solution PH-07 * pH 4 buffer solution PH-04 * ORP electrode ORP-14	

Measurement	Range	Resolution	Accuracy
<b>PH</b>	0 to 14 PH	0.01 PH	±(0.02 PH+2d)
<b>mV</b>	0 to 1999 mV	1 mV	±(0.5%+2d)
* PH accuracy is based on calibrated meter only.			

# WATER QUALITY PH/ORP/DO/CD/TDS/Salt, Data Logger

## Conductivity

<b>Conductivity probe</b>	Optional, Carbon rod electrode for long life.
<b>Function</b>	* Conductivity (uS, mS) * TDS (Total Dissolved Solids, PPM) * Temperature (°C, °F)
<b>Temperature Compensation</b>	Automatic from 0 to 60 °C (32 - 140 °F), with temperature compensation factor variable between 0 to 5.0% per C.
<b>Probe Operating Temp.</b>	0 to 60 °C
<b>Probe Dimension</b>	Round, 22 mm Dia. x 120 mm length.
<b>Optional probe &amp; accessories</b>	* Conductivity probe CDPB-03 * 1.413 mS Conductivity Standard Solution CD-14

## Conductivity (uS, mS)

Range	Measurement	Resolution	Accuracy
200 uS	0 to 200.0 uS	0.1 uS	±(2% F.S.+1d) * F.S. - full scale
2 mS	0.2 to 2.000 mS	0.001 mS	
20 mS	2 to 20.00 mS	0.01 mS	
200 mS	20 to 200.0 mS	0.1 mS	

\* Temperature Compensation: Automatic from 0 to 60°C (32 - 140°F), with temperature compensation factor variable between 0 to 5.0% per C. \* The accuracy is specified under measurement value ≤ 100 mS. \* mS - milli Simens \* @ 23± 5°C

## TDS (Total Dissolved Solids)

Range	Measurement	Resolution	Accuracy
200 PPM	0 to 132 PPM	0.1 PPM	±(2% F.S.+1d) * F.S. - full scale
2,000 PPM	132 to 1,320 PPM	1 PPM	
20,000 PPM	1,320 to 13,200 PPM	10 PPM	
200,000 PPM	13,200 to 132,000 PPM	100 PPM	

\* Temperature Compensation: Automatic from 0 to 60°C (32 - 140°F), with temperature compensation factor variable between 0 to 5.0% per C. \* The accuracy is specified under measurement value ≤ 100 mS. \* mS - milli Simens \* @ 23±5°C

## Temperature

Function	Measuring Range	Resolution	Accuracy
°C	0°C to 60°C	0.1 °C	± 0.8 °C
°F	0°F to 140°F	0.1 °F	± 1.5 °F
@ 23± 5°C			

## Salt

<b>Conductivity probe</b>	Optional, Carbon rod electrode for long life.
<b>Measurement Range/Resolution</b>	0 to 12 % salt (% weight) / 0.01 % salt.
<b>Accuracy</b>	0.5 % salt value * F.S.: full scale.
<b>Temperature Compensation</b>	Automatic from 0 to 60°C (32 - 140°F), with temperature compensation factor variable between 0 to 5.0% per C.
<b>Probe Dimension</b>	Round, 22 mm Dia. x 120 mm length.
<b>Optional probe &amp; accessories</b>	* Salt probe (Conductivity probe) CDPB-03

## Dissolved oxygen

<b>Oxygen Probe</b>	Optional, The polarographic type oxygen probe with	
<b>Measurement &amp; Range</b>	<b>Dissolved Oxygen</b>	0 to 20.0 mg/L (liter).
	<b>Oxygen in Air</b>	0 to 100.0 %.
	<b>Temperature</b>	0 to 50 °C.
<b>Resolution</b>	<b>Dissolved Oxygen</b>	0.1 mg/L.
	<b>Oxygen in Air</b>	0.1 % O <sub>2</sub> .
	<b>Temperature</b>	0.1 °C.
<b>Accuracy (23± 5 °C)</b>	<b>Dissolved Oxygen</b>	± 0.4 mg/L.
	<b>Oxygen in Air</b>	± 0.7% O <sub>2</sub> .
	<b>Temperature</b>	± 0.8 °C/1.5 °F.
<b>Probe Compensation &amp; Adj.</b>	<b>Temperature</b>	0 to 50 °C, Automatic
	<b>Salt</b>	0 to 50 % Salt
	<b>Height ( M. T.)</b>	0 to 8900 meter
<b>Probe Weight</b>	335 g/0.74 LB ( batteries & probe included )	
<b>Probe Size</b>	190 mm x 28 mm Dia. ( 7.5" x 1.1" Dia. )	
<b>Optional Accessories</b>	* Oxygen probe OXPB-11 * Spare Probe head with Diaphragm set OXHD-04 * Probe-filling Electrolyte OXEL-03	



### MP-103, PH/MV/Temp. Meter

**Features:** Microprocessor based with splash proof housing. Rubber protective holster with magnetic • Simultaneous display pH and Temperature • Simple to calibrate by one keyboard for 3 points buffer. Calibration value can be adjusted as needed • Compensation by ATC or MTC. Indicate percentage of slope(PTS) after calibration • Low battery & consumption indicator. Auto shut off after 10 minutes of non use.

**Accessories:** Buffer solution 4 & 7 • 9V Battery • Electrode holder • Instruction manual • Gift box • pH electrode with Pt 100.

	pH	mV	Temp.
<b>Range</b>	0-14.00	±1999	0-100°C
<b>Accuracy</b>	±0.01+1 digit	±1mV+1 digit	±0.2°C+1 digit
<b>Resolution</b>	0.01	1	0.1°C
<b>Compensation</b>	ATC:0-100°C		
<b>Calibration</b>	pH 4.00, 7.00, 10.00		
<b>Battery</b>	9V		
<b>Dimensions</b>	108 x 75 x 30 mm		
<b>Weight</b>	135g (with battery)		



### PH-207, PH/MV/Temp. Meter

**Features:** Multi-measurement : pH, mV, Temperature • Dual display, show the pH & Temp. value at the same LCD display • High input impedance • Wide automatic & manual temperature compensation range • With the optional temp. probe for temp. compensation automatically or temperature measurement • The instrument build in mV (millivolt) measuring function, useful for making ion-selective, ORP, and other precise mV measurement • Built in Slope (PH 4) & Cal. (PH 7) calibration VR on the front panel, easy for single point or 2 points pH calibration • Heavy duty & compact housing case • Records Maximum, Minimum & Average readings with recall • Data hold • RS 232 PC serial interface.

<b>Display</b>	Dual function meter's display, 13mm(0.5"), Super large LCD display with contrast adjustment for best viewing angle
<b>Data Hold</b>	To hold the reading values on display
<b>Memory Recall</b>	Records Max., Min. & Average readings with RECALL
<b>Power off</b>	Auto shut off saves battery life, or manual off by push button
<b>Data Output</b>	RS232 PC serial Interface
<b>Standard Accessories</b>	Carrying case, pH electrode, PE-01, ATC temp. probe, TP-07 PH 4 buffer solution, PH-04. PH 7 buffer solution, PH-07

Measurement	Range	Resolution	Accuracy
<b>PH</b>	0 to 14PH	0.01PH	±(0.03PH+2d)
<b>mV</b>	0 to 1999mV	1mV	±(0.5%+1d)
<b>Temp. (°C)</b>	0 to 65°C	0.1°C	±1°C(0-50°C) ±4°C(>50°C)
<b>Temp. (°F)</b>	32 to 150°F	0.1°F	±1.8°F(32-122°F) ±7.2°F(>122°F)



### PH100, ExStik® PH Meters

Flat Surface electrode provides on-the-spot pH measurements

- RENEW feature tells you when it's time to replace your pH electrode
- CAL feature tells you when it's time to recalibrate your meter
- Flat Surface pH electrode rugged design measures pH on solid and semi-solid surfaces
- Analog bargraph originates at neutral point (pH 7.00) to view trends in acidity or alkalinity
- 1, 2 or 3 point calibration (order pH buffers separately)
- ATC plus measures Temperature
- Memory stores 15 labeled data
- Waterproof to IP57 protects meter from wet environment
- Includes flat surface pH electrode, sensor cap, sample cup with cap, four 3V CR2032 button batteries and 48" (1.2m) neckstrap.

Model	PH100
<b>pH</b>	0.00 to 14.00pH
<b>Temperature</b>	23° to 194°F (-5 to 90°C)
<b>Max. Resolution</b>	0.01pH, 0.1°
<b>Basic Accuracy</b>	±0.01pH, ±1.8°F/1°C
<b>Dimensions</b>	1.4x6.8x1.6" (35.6x172.7x40.6mm)
<b>Weight</b>	3.8oz (110g)
<b>Warranty</b>	1yr (meter)/6mo conditional warranty (electrode)



## pH Electrodes



### PE-01 - Plastic

Rugged, polycarbonate construction features glass pH sensing bulb surrounded by protective teeth. pH range (0-14pH).

- Professional, laboratory & field usage.
- Size: 130x9.5mm.
- Epoxy body.



### GL42 - Glass

- Range: 0-14pH.
- Temp. 0-90°C.
- Ceramic Junction Glass body.
- 0 - 14 pH.
- BNC Connector.
- Size: 155x12mm.
- Cable: 1m.



### PE-08 - Flat Glass Surface

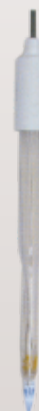
- Professional plane pH electrode, application for Laboratory, high quality & field usage, such as skin and food.
- Size: 137.5x15mm.
- Glass body.
- BNC Connector.
- 0 - 14 pH.



### PF47 - Flat Surface

Flat surface electrode (Easy to clean). PVC bodied electrode, ideal for pH of solid products with minimal moisture like cheese, soils or electrophoretic/agar gels creams. pH range (0 to 14pH), operating temperature (5 to 80°C).

- Cricoid Teflon Junction PVC body.
- Size: 106x15mm.
- BNC Connector.
- Cable: 1m.



### PE-06HD - Pierce

**Features:** The "Spear Tip pH electrode" is perfect for those pH measurements in applications where sample piercing is required. Meat, sausage and cheese are ideal applications. The electrode features a very durable glass measuring spear packaged in a rugged virtually unbreakable epoxy body.

- Size: 160x12mm, Cable: 1m.
- Weight: 68g (including cable & socket).
- Response time: ≤2 minutes.
- Epoxy body.
- BNC Connector.
- 1 - 13 pH, 5°C - 60°C
- Combination type, Ag/AgCl, Double Junction
- pH value of zero mV: 7± 1 pH.
- Repeatability: ≥0.05 pH.
- Mechanical Protection: With protection bottle on the electrode head.



### YK-23RP+ORP-14, ORP Meter+Electrode

**Applications:** Use for oxidation/reduction measurement in plating baths, waste water monitoring and other applications such as Aquarium, Beverage, Fish Hatcheries, Food Processing, Photography, Laboratory, Quality Control, School & Colleges and Swimming Pools.

Model	YK-23RP
<b>Features</b>	Easy operation, compact size. Water resistance on the front panel. All function keys are used the rubber button.
<b>Display</b>	LCD, 21.5 mm ( 0.7" ) digit height
<b>Range</b>	-1,999 mV to +1,999 mV
<b>Resolution</b>	1 mV
<b>Accuracy</b>	± (0.8 % + 1d) @ 23 ± 5°C
<b>Data Hold</b>	To freeze the measured pH value on the display
<b>Power Supply</b>	DC 9V battery
<b>Dimensions</b>	205x68x30mm (8.1x2.7x1.2inch)
<b>Weight</b>	200 g/0.44 LB

Model	ORP-14
<b>Features</b>	Professional ORP electrode with high accuracy & extreme reliability
<b>Electrode Structure</b>	Silver-silver/chloride reference gel
<b>Measure Range</b>	-2,000 to 2,000 mV
<b>Body Material</b>	Epoxy
<b>Connector</b>	BNC
<b>Mechanical Protection</b>	With protection bottle on the electrode head
<b>Dimensions</b>	Body length - 150mm. Body Dia. - 12.5mm. Cable length - 3meter.



**PH-230SD, PH meter, SD Card, Real time Datalogger, Patent + ORP**

- pH : 0 to 14.00 pH, mV (ORP) : ± 1999 mV. • pH measurement can select ATC or manual Temp. adj. • Optional ATC probe for pH measurement. • pH measurement can make the auto calibration for pH 7, pH 4 and pH 10 or other value. • Real time SD memory card Datalogger, it Built-in Clock and Calendar, sampling time set from 1 sec to 8 hour 59 min. 59 sec. • Manual datalogger is available (set the sampling time to 0), during execute the manual datalogger function, it can set the different position (location) No. (position 1 to position 99). • Innovation and easy operation, computer is not need to setup extra software, after execute datalogger, just take away the SD card from the meter and plug in the SD card into the computer, it can down load the all the measured value with the time information (year/month/date/hour/minute/second) to the Excel directly, then user can make the further data or graphic analysis by themselves. • SD card capacity : 1 GB to 16 GB. • LCD with green light backlight, easy reading. • Can default auto power off or manual power off. • Data hold, record max. and min. reading. • Microcomputer circuit, high accuracy. • Power by UM3/AA (1.5V) x 6 batteries or DC 9V adapter. • RS232/USB PC COMPUTER interface. • Wide applications: water conditioning, aquariums, beverage, fish hatcheries, food processing, photography, laboratory, paper industry, plating industry, quality control, school & college, water conditioning.

<b>Model</b>	<b>PH-230SD</b>	
<b>Circuit</b>	Custom one-chip of microprocessor LSI circuit.	
<b>Display</b>	LCD size : 52 mm x 38 mm LCD with green backlight ( ON/OFF ).	
<b>Measurement Function</b>	pH, ORP (mV)	
<b>Datalogger Sampling Time Setting range</b>	Auto	1 sec to 8 hour 59 min. 59 sec. @ For anemometer measurement, the sampling time setting value should be ≥ 2 seconds. @ Sampling time can set to 1 second, but memory data may loss.
	Manual	Push the datalogger button once will save data one time. @ Set the sampling time to 0 second. @ Manual mode, can also select the 1 – 99 position (Location) no.
<b>Memory Card</b>	SD memory card. 1 GB to 16 GB.	
<b>Advanced setting</b>	* SD memory card Format * Set clock time ( Year/Month/Date, Hour/Minute/ Second ) * Set sampling time * Auto power OFF management * Set beep Sound ON/OFF * Decimal point of SD card setting * Set temperature unit to °C or °F * Set pH manual Temp. compensation value	
<b>Data Hold</b>	Freeze the display reading	
<b>Memory Recall</b>	Maximum & Minimum value	
<b>Sampling Time of Display</b>	Approx. 1 second	
<b>Data Output</b>	RS 232/USB PC computer interface. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug * Connect the optional USB cable USB-01 will get the USB plug.	
<b>Power Supply</b>	* Alkaline or heavy duty DC 1.5 V battery (UM3, AA) x 6 PCs, or equivalent	
	* DC 9V adapter input. (AC/DC power adapter is optional)	
<b>Power Current</b>	Normal operation ( w/o SD card save data and LCD Backlight is OFF ) : Approx. DC 15 mA.	
	When SD card save the data and LCD Backlight is OFF ) : Approx. DC 37 mA.	
<b>Operating Temperature</b>	0 to 50°C	
<b>Operating Humidity</b>	Less than 85% R.H.	
<b>Weight</b>	489 g/1.08 LB.	
<b>Dimension</b>	177 x 68 x 45 mm (7.0 x 2.7x 1.9 inch)	
<b>Accessories Included</b>	* Instruction manual: 1PC	
<b>Optional Accessories</b>	* PH electrode PE-03, PE-11, PE-01, PE-02, PE-07, PE-06HD, PE-04HD, PE-05T, PE-03K7 * ATC Temp. probe TP-07 * pH 7 buffer solution PH-07 * pH 4 buffer solution PH-04 * ORP Electrode ORP-14 * Hard carrying case CA-06 * Soft carrying case CA-05A * SD memory card ( 1 GB ) * SD memory card ( 2 GB ) * AC to DC 9V adapter. * USB cable, USB-01. * RS232 cable, UPCB-02. * Data Acquisition software, SW-U801-WIN.	

**Electrical Specifications (23±5°C):**

<b>PH Electrode</b>	Optional, Any PH electrode with BNC connector.	
<b>Measurement</b>	<b>PH</b>	0 to 14 PH
	<b>mV</b>	-1999 mV to 1999 mV
<b>Input Impedance</b>	10 <sup>12</sup> ohm	
<b>Temperature Compensation for pH measurement</b>	<b>Manual</b>	0 to 100°C, be adjusted by push button on front panel.
	<b>Automatic (ATC)</b>	With the optional temperature probe ( TP-07 ) 0 to 65°C.
<b>pH Calibration</b>	PH7, PH4, and PH10, 3 points calibration ensure the best linearity and accuracy.	

Measurement	Range	Resolution	Accuracy
<b>PH</b>	0 to 14 PH	0.01 PH	±(0.02 PH+2d)
<b>mV (ORP)</b>	0 to 1999 mV	1 mV	±(0.5%+2d)

\* PH accuracy is based on calibrated meter only.



## 86505/86555, BenchTop PH/ORP/COND/TDS/Salt, With Printer

- Programmable ph/orp(mv)/conductivity/tds/salinity w/temperature & real time clock stamped (86555 with easy & convenient to operate printer) •
- Powered by adaptor for continuously using super large lcd multi-display (or Batteries for 86555) • Collect data via rs232 by linking with a pc • Automatic ph buffer recognition for calibration up to 5 points hold function • Freezes the current readings • Maxi min review the memorized data • Reliable probes with temp. compensation • Convenient to view calibration information of probes • Ready indicator shows on lcd is selectable • Stores up to 99 memories stamped w / real time • Automatic or manual temp. compensation • Able to read ph slope(%)/offset(mv) displays • **optional & replacement accessories:** condo electrode: vz830paz-graphite or vz831 paz-platinum , ph electrode:vz86p3az-atc,vz86p2az-w/0 atc, orp electrode:vz850paz-platinum pin type, vz86p5az-platinum band type.

Model	86505	86555 with printer
Cond. Range	0-19.99,0-199.9,0-1999uS/cm, 0-19.99mS/cm, 0-199.9mS/cm	
Cond. Accuracy	±(1%FS+1digit) Under good calibration	
Cond. Resolution	0.01 uS/0.1 uS/1 uS/0.01 mS/0.1 mS	
Cond. Sell constant	1.0	
mV Range	-1999~+1999mV	
mV Resolution	0.1mV (± 199.9mV) or 1mV (others)	
pH Accuracy	±0.02 pH	
TDS Range	(f: TDS conversion factor) 0.00~(19.99*f)ppm 0.0~(199.9*f)ppm 0~(1999*f)ppm 0.00~(19.99*f)ppt, 0.1~(199.9*f)ppt	
TDS Accuracy	±(1% FS+1 digit)	
TDS Resolution	0.01/0.111 ppm, 0.01/0.1 ppt	
Salinity Range	0~11.38ppt 0~80.0ppt (Based on NaCl)	
Salt Accuracy	±(1% FS+1 digit)	
Salt Resolution	0.01 ppt , 0.1 ppt	
Temp.(TpH & Tcond)	-5.0°~80.00°C(23.0~176.0°F)	
Temp. Accuracy	±0.50°C(±0.9°F)	
Cond-TDS conversion factor	0.300-1.000	
Cond/Temp. coefficient	0.0 to 10.0% per °C	
Power	Adaptor 9VDC (Recommend Linear AC adaptor)	AA bat. X4pcs or Adaptor 9VDC (Optional)
Operating Temperature	5~40°C (41~104°F)	
Operating/storage RH	Up to 95% w/o condensation	
Storage Temperature	-20~60°C (-4~140°F)	
Dimensions (mm)	L217xW168xH58	L260xW169xH56.8
Weight	137g	150g



**CD-4307SD**

### CD-4307SD, Conductivity Meter, SD Card, Real time Datalogger, TDS, Salt, Patent

- One meter for multi purpose operation: Conductivity, TDS (Total dissolved solids), Salt measurement.
- Conductivity : 200 uS/2 mS/20 mS/200 mS.
- Salt : 0 to 12 % salt (% weight).
- Conductivity measurement can select Temp. Coefficient of measurement solution.
- ATC for the conductivity measurement.
- Separate probe, easy for operation of different measurement environment.
- Real time SD memory card Datalogger, built-in Clock and Calendar, sampling time can set from 1 sec to 8 hour 59 min. 59 sec.
- Manual datalogger is available, during execute the manual datalogger function, it can set the different location no. (position 1 to position 99).
- Innovation and easy operation, computer is not needed to setup extra software, after execute datalogger, just take away the SD card from the meter and plug in the SD card into the computer, it can download all the measured values with the time information (year/month/date/hour/minute/second) to the Excel directly, then user can make the further data or graphic analysis by themselves.
- SD card capacity : 1 GB to 16 GB.
- LCD with green light backlight, easy reading.
- It can default auto power off or manual power off.
- Data hold, record max. and min. reading.
- Microcomputer circuit, high accuracy.
- Power by UM3/AA (1.5 V) x 6 batteries or DC 9V adapter.
- RS232/USB PC COMPUTER interface.

**Wide applications:** water conditioning, aquariums, beverage, fish hatcheries, food processing, photography, laboratory, paper industry, plating industry, quality control, school & college, water conditioning.

Model	CD-4307SD	
<b>Circuit</b>	Custom one-chip of microprocessor LSI circuit.	
<b>Display</b>	LCD size : 52 mm x 38 mm LCD with green backlight ( ON/OFF ).	
<b>Measurement Function</b>	* Conductivity (uS, mS) * TDS (Total Dissolved Solids, PPM) * Salt (% Weight) * Temperature (°C, °F)	
<b>Temperature Compensation</b>	Automatic from 0 to 60°C (32 - 140°F), with temperature compensation factor variable between 0 to 5.0% per C.	
<b>Conductivity Probe</b>	Carbon rod electrode for long life.	
<b>Datalogger Sampling Time Setting range</b>	Auto	1 sec to 8 hour 59 min. 59 sec. @ Sampling time can set to 1 second, but memory data may loss.
	Manual	Push the datalogger button once will save data one time. @ Set the sampling time to 0 second. @ Manual mode, can also select the 1 - 99 position (Location) no.
<b>Memory Card</b>	SD memory card. 1 GB to 16 GB.	
<b>Advanced setting</b>	* SD memory card Format * Set clock time (Year/Month/Date, Hour/Minute/ Second) * Set sampling time * Auto power OFF management * Set beep Sound ON/OFF * Decimal point of SD card setting * Set temperature unit to °C or °F * Set CD temperature compensation factor	
<b>Data Hold</b>	Freeze the display reading	
<b>Memory Recall</b>	Maximum & Minimum value	
<b>Sampling Time of Display</b>	Approx. 1 second	
<b>Data Output</b>	RS 232/USB PC computer interface. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug * Connect the optional USB cable USB-01 will get the USB plug.	
<b>Power Supply</b>	* Alkaline or heavy duty DC 1.5 V battery (UM3, AA) x 6 PCs, or equivalent * DC 9V adapter input. (AC/D C power adapter is optional)	
<b>Power Current</b>	Normal operation (w/o SD card save data and LCD Backlight is OFF): Approx. DC 14 mA When SD card save the data and LCD Backlight is OFF): Approx. DC 37 mA * If LCD backlight on, the power consumption will increase approx. 12 mA	
<b>Operating Temperature</b>	Meter	0 to 50 °C
	probe	0 to 60 °C
<b>Operating Humidity</b>	Less than 85% R.H.	
<b>Weight</b>	489 g/1.08 LB.	
<b>Dimension</b>	Meter	177 x 68 x 45 mm (7.0 x 2.7x 1.9 inch)
	probe	Round, 22 mm Dia. x 120 mm length.
<b>Accessories Included</b>	* Instruction manual: 1PC * Conductivity/TDS/Salt probe, CDPB-03: 1PC * Hard carrying case, CA-06: 1PC	
<b>Optional Accessories</b>	* 1.413 mS Conductivity Standard Solution: CD-14 * SD memory card (1 GB)* SD memory card (2 GB) * AC to DC 9V adapter * USB cable, USB-01 * RS232 cable, UPCB-02 * Data Acquisition software, SW-U801-WIN.	



# WATER QUALITY Conductivity, PH Pocket

## Electrical Specifications (23±5°C): Conductivity (uS, mS)

Range	Measurement	Resolution	Accuracy
200 uS	0 to 200.0 uS	0.1 uS	±(2% F.S.+1d) * F.S. - full scale
2 mS	0.2 to 2.000 mS	0.001 mS	
20 mS	2 to 20.00 mS	0.01 mS	
200 mS	20 to 200.0 mS	0.1 mS	

\* Temperature Compensation: Automatic from 0 to 60°C (32 - 140°F), with temperature compensation factor variable between 0 to 5.0% per C. \* The accuracy is specified under measurement value ≤ 100 mS. \* mS - milli Simens \* @ 23± 5°C

## TDS (Total Dissolved Solids)

Range	Measurement	Resolution	Accuracy
200 PPM	0 to 132 PPM	0.1 PPM	±(2% F.S.+1d) * F.S. - full scale
2,000 PPM	132 to 1,320 PPM	1 PPM	
20,000 PPM	1,320 to 13,200 PPM	10 PPM	
200,000 PPM	13,200 to 132,000 PPM	100 PPM	

\* Temperature Compensation: Automatic from 0 to 60°C (32 - 140°F), with temperature compensation factor variable between 0 to 5.0% per C. \* The accuracy is specified under measurement value ≤ 100 mS. \* mS - milli Simens \* @ 23± 5°C

## Temperature

Function	Measuring Range	Resolution	Accuracy
°C	0°C to 60°C	0.1 °C	± 0.8 °C
°F	0°F to 140°F	0.1 °F	± 1.5 °F

@ 23± 5°C

## Salt

<b>Measurement Range</b>	0 to 12 % salt (% weight).
<b>Resolution</b>	0.01 % salt.
<b>Accuracy</b>	0.5 % salt value * F.S.: full scale.

## EC410, ExStik® II\* Conductivity Kit

Highly accurate multi-ranging sensor that measures Conductivity, TDS, Salinity, and Temperature.

- EC400 ExStik® II Conductivity/TDS/Salinity/Temperature meter with sensor, protective cap, 84µS, 1413µS and 12880µS standards (30mL bottle each), weighted base, 3 sample plastic cups with caps, four 3V CR2032 button batteries, 48" (1.2m) neckstrap, and carrying case.



Model	EC410		
Spec.	Ranges	Max. Resolution	Basic Accuracy
<b>Conductivity</b>	0 to 199.9µS/cm 200 to 1999µS/cm 2.00 to 19.99mS/cm	0.1µS/cm 1µS/cm 0.01mS/cm	±2% FS
<b>TDS</b>	0 to 99.9ppm (mg/L) 100 to 999ppm (mg/L) 1.00 to 9.99ppt (g/L)	0.1ppm (mg/L) 1ppm (mg/L) 0.01ppt (g/L)	±2% FS
<b>Salinity</b>	0 to 99.9ppm (mg/L) 100 to 999ppm (mg/L) 1.00 to 9.99ppt (g/L)	0.1ppm (mg/L) 1ppm (mg/L) 0.01ppt (g/L)	±2% FS
<b>Temperature</b>	32° to 149°F (0° to 65°C)	0.1°	±1.8°F/1°C
<b>Power</b>	Four SR44W button batteries		
<b>Dimensions</b>	Meter: 1.4 x 6.8 x 1.6" (36 x 173 x 41mm) Kit: 9.5 x 6.8 x 2.8" (241 x 173 x 71mm)		
<b>Weight</b>	Meter: 3.8 oz (110g), Kit: 1.56 lbs (708g)		

## EC510 ExStik® II PH/Conductivity Kit

Measures pH, Conductivity, TDS, Salinity, and Temperature using a combination electrode.

- EC500 ExStik II pH/Conductivity/TDS/Salinity/Temperature meter with combination electrode module, 84µS, 1413µS, 12880µS calibration standards, pH buffer pouches (1 each of 4, 7, 10pH plus rinse solution), weighted base, three sample cups with caps, four 3V CR2032 batteries, neckstrap, and case.



Model	EC510		
Spec.	Ranges	Max. Resolution	Basic Accuracy
<b>Conductivity</b>	0 to 199.9µS/cm 200 to 1999µS/cm 2.00 to 19.99mS/cm	0.1µS/cm	±2% FS
<b>TDS/Salinity</b>	0 to 99.9ppm (mg/L) 100 to 999ppm (mg/L) 1.00 to 9.99ppt (g/L)	0.1ppm (mg/L)	±2% FS
<b>PH</b>	0.00 to 14.00pH	0.01pH	±0.01pH
<b>Temperature</b>	23° to 194°F (-5 to 90°C)	0.1°F/°C	±1.8°F/1°C
<b>Waterproof</b>	IP57		
<b>Memory</b>	25 datasets		
<b>Dimensions</b>	1.4 x 7.3 x 1.6" (36 x 186 x 41mm)		
<b>Weight</b>	3.8oz (110g)		

## CD-4303, 200 uS/2 mS/20 mS, RS-232, Conductivity Meter

**Features:** Wide applications: water conditioning, aquariums, beverage, fish hatcheries, food processing, photography, laboratory, paper industry, quality control, school & college, water conditioning • Innovative feature with built-in automatic temperature compensation • Carbon rod electrode for long life • Dual LCD display, show both conductivity & temp. values • Heavy duty & compact housing case • Records Maximum, Minimum & Average readings with RECALL • Data Hold function • Auto shut off saves battery life • Operates from DC 9V battery • RS 232 PC serial interface.



<b>Model</b>	<b>CD-4303</b>
<b>Measurement</b>	Conductivity: 3 ranges, 199.9 uS, 1.999 mS, 19.99 mS
<b>Memory Recall</b>	Records Max., Min. & Average readings with recall facility
<b>Power off</b>	Manual off by push button or Auto shut off offer 10 minutes(not activated during memory record function)
<b>Data Output</b>	RS 232 PC serial interface
<b>Power Supply</b>	DC 9V battery
<b>Weight</b>	350g
<b>Size</b>	Main instrument: 180 x 72 x 32 mm (7.1 x 2.8 x 1.3 inch)
	Probe: Round, 22mm Dia. x120mm length
<b>Accessories Included</b>	Instruction Manual - 1 PC. Sensor Probe - 1 PC. Carrying case - 1 PC.

### Conductivity:

Range	Measurement	Resolution	Accuracy
200 uS	0.1 to 199.9 uS	0.1 uS	±(2%F.S. +1d) *F.S. - Full scale
2 mS	0.2 to 1.999 mS	0.001 mS	
20 mS	2 to 19.99 mS	0.01 mS	

\* uS - micro Simens, mS - milli Simens

### Temperature:

<b>Measuring Range</b>	0°C to 60°C/ 32°F to 140°F
<b>Resolution</b>	0.1°C/ 0.1°F

## DO-5510, Dissolved & Atmospheric Oxygen Meter

**Features:** The polarographic type oxygen probe with an incorporated Temp. sensor, high precision measurement for Dissolved Oxygen(DO), Oxygen in air(O<sub>2</sub>) & Temp. measurement • Heavy duty dissolved oxygen probe, probe head can connect with BOD bottle • Automatic Temp. compensation from 0 to 50°C for sensor probe • Build in " % SALT " & " Mountain Height " compensation • adjustment button • Microprocessor circuit • Records Maximum, Minimum value • RS 232 PC serial interface.



<b>Model</b>	<b>DO-5510</b>	
<b>Display</b>	Dual function meter's display, 13 mm(0.5"). Super large LCD display with contrast adjustment for best viewing angle.	
<b>Measurement &amp; Range</b>	Dissolved Oxygen	0 to 20.0 mg/L(Liter)
	Oxygen in Air	0 to 100.0 %
	Temperature	0 to 50°C
<b>Resolution</b>	Dissolved Oxygen	0.1 mg/L
	Oxygen in Air	0.1% O <sub>2</sub>
	Temperature	0.1
<b>Accuracy (23±5°C)</b>	Dissolved Oxygen	±0.4mg/L
	Oxygen in Air	±0.7% O <sub>2</sub>
	Temperature	±0.8°C/1.5°F
<b>Sensor Structure</b>	The polarographic type oxygen probe with an incorporated temperature sensor.	
<b>Probe Compensation &amp; Adg.</b>	Temperature	0 to 50°C Automatic
	Salt	0 to 39% Salt
	Height (M.T.)	0 to 3900 meter
<b>Memory Recall</b>	Records Maximum, Minimum and Average readings with RECALL	



## DO-5512SD, dissolved oxygen meter, SD Card, real time datalogger, Patent

- Precision Dissolved Oxygen measurement • Dissolved oxygen: 0 to 20.0 mg/L • Dissolved oxygen meter use the polar graphic type oxygen probe with temperature sensor, high precision measurement for Dissolved Oxygen (DO) and temperature measurement. • Heavy duty dissolved oxygen probe, probe head can connect with BOD bottle. • DO use the automatic Temp. compensation. • DO meter build in " % SALT " & "Mountain Height" compensation value adjustment. • Separate probe, easy for operation of different measurement environment. • Real time SD memory card Datalogger, it Built-in Clock and Calendar, real time data recorder, sampling time set from 1 sec to 8 hour 59 min. 59 sec. • Manual datalogger is available (set the sampling time to 0), during execute the manual datalogger function, it can set the different position (location) No. (position 1 to position 99). • Innovation and easy operation, computer is not need to setup extra software, after execute datalogger, just take away the SD card from the meter and plug in the SD card into the computer, it can down load the all the measured value with the time information (year/month/date/hour/minute/second) to the Excel directly, then user can make the further data or graphic analysis by themselves. • SD card capacity : 1 GB to 16 GB. • LCD with green light backlight, easy reading. • Can default auto power off or manual power off. • Data hold, record max. and min. reading. , high accuracy. • Power by UM3/AA (1.5V) x 6 batteries or DC 9V adapter. • RS232/USB PC COMPUTER interface. • Wide applications: water conditioning, aquariums, beverage, fish hatcheries, food processing, photography, laboratory, paper industry, plating industry, quality control, school & college, water conditioning.

Model	DO-5512SD	
Circuit	Custom one-chip of microprocessor LSI circuit.	
Display	LCD size : 52 mm x 38 mm LCD with green backlight (ON/OFF).	
Measurement	Dissolved Oxygen, Air oxygen (for reference only)	
Measurement & Range	Dissolved Oxygen	0 to 20.0 mg/L (Liter).
	Oxygen in Air	0 to 100.0 %.
	Temperature	0 to 50°C.
Resolution	Dissolved Oxygen	0.1 mg/L.
	Oxygen in Air	0.1 % O <sub>2</sub> .
	Temperature	0.1°C.
Accuracy (23± 5°C )	Dissolved Oxygen	± 0.4 mg/L.
	Oxygen in Air	± 0.7% O <sub>2</sub> .
	Temperature	± 0.8 °C/1.5 °F.
Probe Compensation & Adj.	Temperature	0 to 50 °C, Automatic
	Salt	0 to 50 % Salt
	Height ( M. T.)	0 to 8900 meter
Oxygen Probe	The polarographic type oxygen probe with temp. sensor.	
Datalogger Sampling Time Setting range	Auto	1 sec to 8 hour 59 min. 59 sec. @ Sampling time can set to 1 second, but memory data may loss.
	Manual	Push the datalogger button once will save data one time. @ Set the sampling time to 0 second. @ Manual mode, can also select the 1 - 99 position (Location) no.
Memory Card	SD memory card. 1 GB to 16 GB.	
Advanced setting	* SD memory card Format * Set clock time (Year/Month/Date, Hour/Minute/ Second) * Set sampling time * Auto power OFF management * Set beep Sound ON/OFF * Decimal point of SD card setting * Set temperature unit to °C or °F * Set DO salt% compensation value * Set DO height ( meter ) compensation value * Set DO height ( feet ) compensation value	
Data Hold	Freeze the display reading	
Memory Recall	Maximum & Minimum value	
Sampling Time of Display	Approx. 1 second	
Data Output	RS 232/USB PC computer interface. * Connect the optional RS232 cable UPCB-02 will get the RS232 plug * Connect the optional USB cable USB-01 will get the USB plug.	
Power Supply	* Alkaline or heavy duty DC 1.5 V battery (UM3, AA) x 6 PCs, or equivalent * DC 9V adapter input. (AC/D C power adapter is optional)	
Power Current	Normal operation (w/o SD card save data and LCD Backlight is OFF): Approx. DC 14 mA	
	When SD card save the data and LCD Backlight is OFF): Approx. DC 37 mA	
	* If LCD backlight on, the power consumption will increase approx. 12 mA	
Operating Temperature	0 to 50 °C	
Operating Humidity	Less than 85% R.H.	
Weight	Meter: 489 g/1.08 LB. probe: 335 g/0.74 LB	
Dimension	Meter: 177 x 68 x 45 mm (7.0 x 2.7x 1.9 inch) probe: 190 mm x 28 mm Dia. ( 7.5" x 1.1" Dia. )	
Accessories Included	* Oxygen probe ( OXPB-11 ): 1PC * Hard carrying case ( CA-06 ): 1PC * Operation manual: 1PC * Spare Probe head with Diaphragm OXHD-04: 2 set * Probe-filling Electrolyte OXEL-03: 1 set	
Optional Probe & Accessories	*Oxygen probe: OXPB-11 * Spare Probe head with Diaphragm set: OXHD-04 * Probe-filling Electrolyte: OXEL-03 * RS232 cable: UPCB-02 * USB cable: USB-01 *Data Acquisition software: SW-U801-WIN * AC to DC 9V adapter	



**ITS-486911, 476 nm Photometer**

On-Site testing for Lead, Mercury and Cadmium in Water. Meter also can be used to detect Lead in Paint, Soil, Glassware, Crystal and Ceramics.

- Accurate results with fewer steps
- Non-Technical Procedure
- 3 ppb (pg/L) or .03 pg lead detection
- Affordable (as little as £.80 per test)
- Uses patented technology (U.S. Patent 7333194)
- 2-Year warranty with satisfaction guarantee.



Menu	Tests for	Range	Resolution	± Accuracy
PA1	Diluted Homogenized Paint Lead	0.000 to 1.99	0.001	0.003 or 6%
PB2	Lead in Water (auto-zero)	1-500 µg/L	1 µg/L	3 µg/L or 6%
HG3	Mercury in Water (auto-zero)	10-600 µg/L	1 µg/L	6 µg/L or 6%
CD4	Cadmium in Water (auto-zero)	0.01-0.80 mg/L	0.01 mg/L	0.06 mg/L or 6%
AB5	Future or Custom Tests Absorbance	0.000-1.99 abs	0.001 abs	0.003 or 6% abs
PB6	Lead in Water	1-500 µg/L	1 µg/L	3 µg/L or 6%

**Tests:**

Part	Parameter/Product
486900	eXact® LEADQuick™ Photometer – Meter only (476 nm) Meter Only. For use with reagent sets below.
486001	Carrying case with foam for eXact® LEADQuick™
486900-W	eXact® LEADQuick™ Water Test Kit Kit includes eXact® LEADQuick™ Photometer (486900), carrying case, and reagents (486901)
486901	eXact® LEADQuick™ Water Reagent Set (For use with 486900) Reagent Set includes: ACID-1, PB-2, PB-3, PB-4, MSDS Sheet
486904	eXact® Cadmium (as Cd <sup>+2</sup> ) Reagent Set (For use with 486900) Reagent Set includes: HCl-1, PB-2, P6-3, PB-4, MSDS Sheet
486911	LeadPaintCheck Startup Kit Kit includes: Instructions, eXact® LEADQuick™ Photometer (486900), LeadPaintCheck Reagents (486905)x2, Homogenizer Kit by Omni (486950), 500ml Wash Bottle, 15ml Plastic Conical Tube with rack x 50 (486952), 50ml Plastic Conical Tubex50 (486953), ½" Cork Bore, Cork Bore Sharpener (48954), Accumax Jr. 100p1 Pipette (486955), Pipette Tip for 100p1 Pipette x 96 (486956), ¼" Cork Bore, Sharp Scissors, Forceps, Rob and Base for Homogenizer (S1000), Small Brush, Funnel System, Scalpel with Blades, Masking Tape, Cork Bore Remover, Video on CD.
486905	LeadPaintCheck Replacement Reagent Set (For use with 486900) Reagent Set includes: ACID-1 (x6 bottles), PB-2, PB-3, MSDS Sheet
487925-V	LEADQuick™ Paint – Home Visual Lead Paint Test Kit Kit includes: Instructions, PB-1P (487925-P), PB-2 (488375-B), PB-3 (488375-C), Small Tube x 5, Color Chart



**ITS-486696-PLUSK, 525 nm Chlorine Plus**

**Specifications:**

Menu	Tests for	Range	Resolution	+/- Accuracy
CL1	Free Chlorine & Total Chlorine	0-11 ppm	0.01 (0-5.99ppm)	±3% (0-3.00ppm)
			0.1 (6-11ppm)	±7% (3.01-5.99ppm)
bR2	Bromine	0-14 ppm	0.01 (0-5.99ppm)	±3% (0-2.50ppm)
			0.1 (6-14ppm)	±6% (2.51-14ppm)
O3	Ozone	0.01-9 ppm	0.01 (0.01-5.99ppm)	±8% (0.01-5.99ppm)
			0.1 (6-9ppm)	±16% (6.0-9ppm)
Cd4	Chlorine Dioxide	0-12 ppm	0.01 (0-5ppm)	±8%
			0.1 (5.01-12ppm)	
PA5	Peracetic Acid	0-9 ppm	0.01 (0-5ppm)	±8% (0-5.00ppm)
			0.1 (5.1-9ppm)	±9% (5.1-9ppm)
HP6	Hydrogen Peroxide	0-3 ppm	0.01 (0-1ppm)	±10% (0-1.00ppm)
			0.01 (1.1-3ppm)	±13% (1.1-3ppm)
TR7	Transmission	99.9-0.01 %T	0.01 (0.01-9.99 %T)	±1%
			0.1 (10-99.9 %T)	
HR8	High Range Chlorine	0-300 ppm	1	±8%

\* Performance verified with various water Samples With optimal water temp. at 10-40°C.

Part	Parameter/Product
486696-PLUSK	eXact® Chlorine Plus Kit Kit includes 25 tests of CL (DPD-1) (486637-25), bR (486636-25), O3 (486634-25), Cd (486633-25), PA (486674-25), HP (486616-25), HR (486672-25), 50 Glycine (484014) strips



## ITS-486698-K, 525nm & 638nm Dual Wavelength Photometer



ITS-486698-K

- Ideal for accurate Environmental Testing and Aquaculture Monitoring

Menu	Tests for	Range	Resolution	± Accuracy
AL1	Total Alkalinity (as CaCO <sub>3</sub> ) <sup>1</sup>	1 -320ppm	0.01 (0-50.0ppm)	10 (1-100ppm)
			1 (51-320ppm)	7.5 (101-200ppm) 11 (201-320ppm)
NO2	Nitrite (as NO <sub>2</sub> ) <sup>1</sup>	0.01-1.8ppm	0.01	5
NO3	Nitrate (as NO <sub>3</sub> )	0.12-30ppm	0.01 (0-5.00ppm)	20
			0.1 (5.1-30ppm)	
NH4	Ammonia (as NH <sub>3</sub> ) <sup>1</sup>	0.01-2.4ppm	0.01	5
TH5	Total Hardness (as CaCO <sub>3</sub> ) <sup>1</sup>	5-300ppm	1	19 (5-80ppm) 17 (81-180ppm) 16(181-300ppm)
CL6	Free & Total Chlorine <sup>1</sup>	0.01-5ppm	0.01	3 (0.01-1.50ppm)
				6 (1.51-5ppm)
bt7	pH, BT	4.5-9.2 pH	0.01	0.2 pH (4.5-7.50) 0.5pH (7.51-9.2)
PO8	Phosphate (as PO <sub>4</sub> ) <sup>1</sup>	0.01-4 ppm	0.01 (0-2.50ppm)	4 (0301-2ppm)
			0.1 (2.6-4ppm)	7.5 (2.01-4ppm)
CU9	Copper (as Cu <sup>+2</sup> ) <sup>1</sup>	0.01-11ppm	0.01 (0-4.00ppm)	2
			0.1 (4.1-11ppm)	
CH0	Salt (as NaCl) <sup>1</sup>	1-430ppm	1	20 (1-100ppm)
				24 (101-250ppm)
				21 (251-430ppm)
P11	pH, BT	4.5-9 pH	0.01	0.2 pH (4.5-7.5)
				0.6 pH (7.6-9)

<sup>1</sup> Performance verified with various salt Systems and water Samples With optimal water temperature at 10-40°C. Optimal water temperature for Total Alkalinity test is 15-40°C.

Part	Parameter/Product
486698-K	eXact® Eco-Check Kit Kit includes: 25 tests of CL (DPD-4) (486670-25), AL (486641-25), BTPH (486652-25), BTPH Reagent (486657-25), CH (481657-II), NH3 (486654), Cu (486632-25), NO <sub>3</sub> (486655-25), NO <sub>2</sub> (486623-25), PO <sub>4</sub> (486814-25), TH (486673-25) strips & Mini Dilution Kit II (487202)

## ITS-486700, 525nm & 638nm Dual Wavelength Photometer

Introducing the ultimate Water Quality Tester, the eXact® Micro 20 dual wavelength photometer. It features ultra-performance using narrow band wavelength filters for enhanced results and stable, long-life LED light sources and a built-in cell that uses a simple patented system for colorimetric analysis. All tests are designed to use an identical 20-second procedure called the EZ-3™ Reagent Delivery methodology that minimizes confusion for non-technical users. The eXact® Micro 20 delivers lab-quality results at minimal cost.



ITS-486700

### Reagents:

parameter/test	Part	Range	Resolution	Chemistry	Tests
Alkalinity, Total	486641	0 - 200ppm	1	Alizarin Red S+Citrate	100
Aluminum	486821	0 - 0.9ppm	0.01	PV	50
Ammonia	486654	0 - 2.3ppm	0.01	Salicylate Method	25
Biguanide	486810	0 - 250ppm	1	Bromophenol Blue	50
Bromine (DPD-1)	486636	0 - 12ppm	0.1	DPD	100
Chloride (as NaCl) II	481657-II	0 - 400ppm	5	Silver (ppt)	25
Chlorine Dioxide (DPD-1)	486633	0 - 10ppm	0.1	DPD	100
Chlorine, Free (DPD-1)	486637	0 - 4.5ppm	0.01	DPD	100
Chlorine, High Range Free	486672	0 - 300ppm	1	KI + Buffer	50
Chlorine, Total (DPD 3)**	486638	0 - 4.5 ppm	0.01	KI	100
Chlorine, Total (DPD-4)	486670	0 - 4.5ppm	0.01	DPD + KI	100
Chromium (VI)	486614	0 - 1.8ppm	0.01	Diphenylcarbazide	50
Copper (Cu <sup>+2</sup> )	486632	0 - 11ppm	0.01, 0.1	Biquinoline	50
Cyanide	486812	0 - 2.3ppm	0.01	Isonicotinic/Barbituric Acid	50
Cyanuric Acid II	481652-II	0 - 110ppm	1	Melamine (ppt)	60
Fluoride	486643	0 - 1.5ppm	0.01	SPADNS	25
Glycine (used for Chlorine Dioxide)	484014	N/A	N/A	Glycine	50
Hydrogen Peroxide LR	486616	0 - 2ppm	0.01	DPD+PO <sub>4</sub> +MoO <sub>4</sub> +KI	50
Total Hardness (as CaCO <sub>3</sub> )	486673	0 - 300ppm	1	Phthalein Purple	50
Manganese	486606	0 - 1.5ppm	0.01	PAN + Cyanide	24
Nitrate (as NO <sub>3</sub> )	486655	0 - 16ppm	0.01, 0.1	Zinc Reduction	50
Nitrite (as NO <sub>2</sub> )	486623	0 - 1.6ppm	0.01	Chromotropic Acid	50
Ozone (DPD-4)	486634	0 - 4.5ppm	0.01	DPD + KI	100
Peracetic Acid (DPD-4)	486674	0 - 5ppm	0.01	DPD + KI	100
Permanganate (DPD-1)	486676	0 - 4.5ppm	0.01	DPD	100
pH	486639	5.5-8.4ppm	0.1	Phenol Red	100
pH, BT	486652	4 - 9ppm	0.1	Bromothymol Blue & Thymol Blue	100
Phosphate	486814	0 - 6.5ppm	0.01, 0.1	Molybdate Method	50
Quaternary Ammonia	486823	0 - 250ppm	1	Bromophenol Blue & Citrate Buffer	100
Sulfate	486608	0 - 200ppm	1	Barium (ppt)	50
Sulfide	486818	0 - 1.6ppm	0.01	DPD Reagent/FeCl <sub>3</sub>	50
Total Iron, TPTZ	486650	0 - 7.5ppm	0.01, 0.1	TPTZ + PP	50

## ITS-486691-K, 525 nm Photometer Specifications:

- Directly reads 14 parameters
- Uses patented technologies (U.S Patent 7333194, 7491546)
- 0.01 ppm (mg/L) resolution
- Built-in cell and countdown timer
- Accurate, reliable, and portable
- 20-Test memory for each menu (160 total)
- 2-Year warranty with satisfaction guarantee.



Menu	Tests for	Range	Resolution	± Accuracy
CL1	Free Chlorine & Total Chlorine	0-11 ppm	0.01 (0-5.99ppm)	2 (0-3.00ppm)
			0.1 (6-11ppm)	7 (3.01-5.99ppm)
				12 (6.0-11ppm)
PH2	pH	6.2-8.4 pH	0.1	0.4pH
BR3	Bromine	0-14 ppm	0.01 (0-5.99ppm)	3 (0-2.50ppm)
			0.1 (6.0-14ppm)	8 (2.51-14ppm)
AL4	Total Alkalinity (as CaCO <sub>3</sub> )	5-300 ppm	1	12 (5-50ppm)
				10 (51-200ppm)
				13 (201-300ppm)
TH5	Total Hardness (as CaCO <sub>3</sub> )	1-320 ppm	1	10
CU6	Copper (as Cu <sup>+2</sup> )	0.04-8 ppm	0.01 (0.04-2.99ppm)	3
			0.1 (3.0-8ppm)	
FE7	Total Iron (as Fe)	0.03-5 ppm	0.01	3 (0.03-1ppm)
				4 (1.01-3.5ppm)
				10 (3.51-5ppm)
HR8	High Range Chlorine	0-300 ppm	1-300 ppm	8

\* Performance verified with various salt Systems and water Samples With optimal water temperature at 10-40°C. Optimal water temperature for Total Alkalinity test is 15-40°C. Optimal water temperature for High Range Chlorine test is 0-40°C.

Part	Parameter/Product
486691-K	eXact® Micro 7+ Standard Kit Kit includes Micro 7+ (486691), 25 tests of CL (DPD-1) (486637-25), CL (DPD-3) (486638-25), AL (486641-25), PH (486639-25), CA (486629-25), CU (486632-25), HR (486672-25) strips
486678	eXact® Micro Combo Lab Kit includes Micro 7+ (486691), Micro 8(486800), tests of each: CL (DPD-1) (486637-25), CL (DPD-3) (486638-25), AL (486641-25), CA (486629-25), CU (486632-25), PO <sub>4</sub> (486814), NH <sub>3</sub> (486654), BT-PH (486652), FE (TPTZ) (486650), and HR (486672)

## Reagents:

parameter/test	Part	Range	Chemistry	Tests
Alkalinity, Total	486641	5 - 300 ppm	Alizarin Red S + Citrate	100
Bromine (DPD-1)	486637	0-14 ppm	DPD	100
Chlorine, Free (DPD-1)	486637	0- 11 ppm	DPD	100
Chlorine, Free (DPD-1)	484051	0- 11 ppm	DPD	100 Foils
Chlorine, Total (DPD-3)*	486638	0- 11 ppm	KI	100
Chlorine, Total (DPD-3)*	484103	0-11 ppm	KI	100 Foils
Chlorine, Total (DPD-4)	486670	0-11 ppm	DPD + KI	100
Chlorine, Total (DPD-4)	484054	0-11 ppm	DPD i.- KI	100 Foils
Chlorine, High Range Free	486672	0- 300 ppm	K) + Buffer	50
Copper (Cu <sup>+2</sup> )	486632	0.04 - 8 ppm	Biguinoline	50
Hardness, Total	486673	1 -320 ppm	Phthalein Purple	50
Total Iron, TPTZ	486650	0.03 - 5 ppm	TPTZ + PP	50
Ozone (DPD-4)	486670	0-11 ppm	DPD + KI	100
Permanganate (DPD-1)	486637	0 - 11 ppm	DPD	100
pH	486639	6.2 - 8.4 pH	Phenol Red	100

Total Chlorine DPD-3 Test requires Free Chlorine DPD-1 (486637) to be run first. For resellers and distributors - products sold in case quantities (12 units per case).



**TU-2016**

### TU-2016, Turbidity Meter

- Designed to meet ISO 7027.
- NTU (Nephelometric TURBIDITY Unit) measuring unit.
- Wide and auto measurement range : 0 to 1,000 NTU.
- High resolution : 0.01 NTU/1 NTU.
- The unique optics structure, enables the instrument to read low value of TURBIDITY to the high level up to 1,000 NTU.
- Four operation buttons and two calibration points, easy operation.
- Jumbo LCD, easy readout.
- Microprocessor circuit assures maximum possible accuracy, provides special functions and features.
- Battery operated for field and on-site testing convenience.
- Data hold function for freezing the desired value on display.
- Records Maximum and Minimum readings with Recall.
- Heavy duty & compact housing with hard carrying case, designed for easy carry out & operation.
- Auto shut off is available to save battery life.
- Application : Test municipal water, food and beverage water, or other aqueous solution where fluid clarity is important.

Model	TU-2016	
Circuit	Custom one-chip of microprocessor LSI circuit.	
Display	LCD size : 41 mm x 34 mm	
Range	0.00 to 50.00 NTU, 50 to 1,000 NTU * NTU : Nephelometric Turbidity Unit * Auto range	
Resolution	0.01 NTU/ 1 NTU	
Accuracy	± 5 % F.S. or ± 0.5 NTU, which ever is greater.	
Light source	LED, 850 nm.	
Detector	Photo diode	
Standard	Meet ISO 7027.	
Response time	Less than 10 seconds.	
Sample volume needed	10 mL.	
Data Hold	Freeze the display reading.	
Memory Recall	Maximum & Minimum value.	
Sampling Time	Approx. 1 second.	
Power off	Auto shut off saves battery life or manual off by push button.	
Calibration points	0 NTU, 100 NTU.	
Operating Temperature	0 to 50°C.	
Operating Humidity	Less than 85% R.H.	
Power Supply	DC 1.5 V battery ( UM4, AAA ) x 6 PCs, or equivalent.	
Power Current	Stand by	Approx. DC 3.5 mA.
	Testing	Approx. DC 36 mA.
Weight	320 g/0.70 LB. @ Battery is included.	
Dimension	155 x 76 x 62 mm ( 6.1 x 3.0 x 2.4 inch)	
Accessories Included	* Testing bottle with 0 NTU standard solution: 1 PC * Testing bottle with 100 NTU standard solution: 1 PC * Empty testing bottle: 2 PCs * Clean cloth: 1 PC * Clean solution (Distill water): 1 bottle* Hard carrying case, CA-08: 1 PC	
Optional Accessories	* Testing bottle with 100 NTU standard solution, TU-100NTU * Testing bottle with 0 NTU standard solution, TU-0NTU * Empty testing bottle, 0601	