





PC2000



www.horiba-laqua.com



# Ready to go out of the box

Meter kits come with electrodes and calibration solutions

# Adjustable, Integrated Electrode Stand ———

Holds up to 2 electrodes and can be positioned on either side of the meter



# 

Indicate reading stability in measurement and calibration modes

# 5" Digital Backlit Display

Shows all important readings and indicators for every measurement

## Electrode Status

Reveals electrode condition based on calibration data









### Auto Cal Standards

Icon lights up after calibration making standard solutions used viewable at a glance



## Auto Data Log

Captures and stores data into memory based on specified time interval



# Adjustable Shut-Off Time

Switches the meter off at idle (up to 30 minutes)

## Data Acquisition Software Connectivity

Data can be transferred to computer and exported to CSV/Excel/PDF via USB cable and complimentary DAS20 software



#### Real Time Clock

Keeps precise time and date and facilitates functions that are time-dependent



### Password Protected

A 4-digit password secures the meter setup mode from unauthorized access



# Large Internal Memory

Accepts up to 2000 data sets



## Software Upgrade

Latest software version can be loaded into the meter when available







Temperature Compensation

Temperature in °C or °F is either automatically detected when temperature sensor is connected (ATC mode) or manually entered by the user (MTC mode)



MTC mode







Auto Stable

Auto Hold

Real Time

Auto Stable mode signals stable reading, Auto Hold mode locks stable reading, and Real Time mode continuously displays live readings



# LAQUA-PH200

pH/ORP/Temp (°C/°F) Bench Meter

25.0°C





Provides accurate pH readings with auto temperature compensation



Accepts up to 6 calibration points



Sets off calibration • alarm when activated







Allows 1-point ORP calibration Records offset, segment slope(s), and average slope after pH calibration



### More pH buffer groups for calibration

| pH Buffer Group | pH Buffer Values (25°C)   |
|-----------------|---|
| USA             | 1.68, 4.01, 7.00, 10.01, 12.45                                      |
| NIST            | 1.68, 4.01, 6.86, 9.18, 12.45                                       |
| NIST2           | 1.68, 4.01, 6.86, 10.01, 12.45                                      |
| DIN             | 1.09, 3.06, 4.65, 6.79, 9.23, 12.75                                 |
| CUST            | Use up to 6 pH buffers that are 1.0 pH apart for manual calibration |

## **LAQUA pH Electrodes**

| Model                      | LAQUA-PH2000  |
|----------------------------|---|
| Model                      | pH/ORP/Temp (°C/°F) Bench Meter                                 |
| pH Range                   | -2.000 to 20.000 pH   |
| Resolution                 | 0.1 / 0.01 / 0.001 pH   |
| Accuracy                   | ± 0.003 pH  |
| pH Buffer Groups           | USA, NIST, NIST2, DIN, Custom                                   |
| Calibration Points         | Up to 5 (USA, NIST, NIST2) / Up to 6 (DIN, Custom)              |
| ORP Range                  | ± 2000.0 mV   |
| Resolution                 | 0.1 mV  |
| Accuracy                   | ± 0.2 mV  |
| Calibration Option         | Yes (Up to ± 200 mV)  |
| Temperature Range          | -30.0 to 130.0 °C / -22.0 to 266.0 °F                           |
| Resolution                 | 0.1 °C / °F   |
| Accuracy                   | ± 0.5 °C / ± 0.9 °F   |
| Calibration Option         | Yes ( $\pm$ 10.0 °C / $\pm$ 18.0 °F range in 0.1 °C increments) |
| Memory                     | 2000  |
| Auto Data Log              | Yes   |
| Real-time Clock            | Yes   |
| Date & Time Stamp          | Yes   |
| Measurement Modes          | Auto Stable / Auto Hold / Real Time                             |
| Offset & Slope Display     | Yes (Segment & Average Slopes)                                  |
| Calibration Alarm          | Yes (Programmable: up to 90 days)                               |
| Auto Shut-Off              | Yes (Programmable: up to 30 mins.)                              |
| Electrode Status           | On screen display   |
| Diagnostics                | Yes   |
| Password Setting           | Yes   |
| Software Upgrade           | Yes   |
| PC / Printer Communication | Phono jack (USB / RS232C)                                       |
| Meter Inputs               | BNC, phono (ATC), DC sockets                                    |
| Display                    | 5" Custom LCD with backlight and 320 segments                   |
| Power Requirement          | AC adaptor 100 - 240V, 50 - 60Hz                                |
| Dimensions & Weight        | 155(L) x 150(W) x 67(H) mm, 765g                                |

|                                | Meter Kits  |
|--------------------------------|---|
| <b>PH2000</b><br>3200912571    | <ul> <li>Meter with integrated electrode stand</li> <li>Universal power adaptor with 6 plugs</li> <li>Manual</li> </ul>                               |
| <b>PH2000-S</b> 3200905158     | <ul> <li>PH2000</li> <li>9615S-10D refillable, glass-body pH electrode with built-in temperature sensor</li> <li>502-S USA pH buffers kit</li> </ul>  |
| <b>PH2000-SN</b><br>3200905163 | <ul> <li>PH2000</li> <li>9615S-10D refillable, glass-body pH electrode with built-in temperature sensor</li> <li>501-S NIST pH buffers kit</li> </ul> |



#### **ToupH Standard Electrode**

#### 9615S-10D

General laboratory application

pH Range: 0-14

Operating Temperature Range (°C): 0-100

Liquid Junction: Ceramic



### **ToupH Sleeve Electrode**

#### 9681S-10D

High viscosity application

pH Range: 0-14 Operating Temperature Range (°C): 0-60

Liquid Junction: Movable Sleeve



### **ToupH Micro Electrode**

#### 9618S-10D

Precious trace amount sample

pH Range: 0-14

Operating Temperature Range (°C): 0-60

Liquid Junction: Ceramic

For more electrode options





Allows auto and manual conductivity calibrations





COND

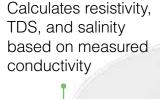
CAL

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Provides accurate conductivity readings with auto temperature compensation



Accepts up to 5 conductivity calibration points





Allows 1-point salinity calibration



Records individual and average calibration factors after conductivity calibration

EC5000

O COLD CERO

ATAG



#### Meter Kits

EC2000 3200912572

- Meter with integrated electrode stand
- Universal power adaptor with 6 plugs
- Manual

EC2000-S 3200905159

- EC2000
- 9382-10D Ti/Pt black plastic-body conductivity electrode k=1.0 with built-in temperature sensor
- 503-S Conductivity standard solutions kit

|                                       | LAQUA-EC2000  |
|---------------------------------------|---|
| Model                                 | Conductivity/Resistivity/TDS/Salinity/Temp (°C/°F)  Bench Meter   |
| Conductivity Range                    | 0.000 to 1.999 $\mu$ S/cm (k = 0.1)<br>2.00 to 19.99 $\mu$ S/cm (k = 0.1, 1)<br>20.0 to 199.9 $\mu$ S/cm (k = 0.1, 1, 10)<br>200 to 1999 $\mu$ S/cm (k = 0.1, 1, 10)<br>2.00 to 19.99 mS/cm (k = 0.1, 1, 10)<br>20.0 to 199.9 mS/cm (k = 1, 10)<br>0.200 to 2.000 S/cm (k = 10) |
| Units                                 | Auto ranging S/cm, S/m (μS ↔ mS)  |
| Resolution                            | 0.05% full scale  |
| Accuracy                              | ± 0.6% full scale; ± 1.5% full scale > 18.0 mS/cm   |
| Reference Temperature                 | 15.0 to 30.0 °C (adjustable)  |
| Temperature Coefficient               | 0.00 to 10.00 % per °C (adjustable)   |
| Cell Constants                        | 0.0700 to 13.000 (adjustable)   |
| Calibration Points                    | Up to 4 (Auto) / Up to 5 (Manual)   |
| Resistivity Range                     | 0.000 Ω•cm to 20.0 MΩ•cm  |
| Resolution                            | 0.5% full scale   |
| Accuracy                              | ± 0.6% full scale; ± 1.5% full scale > 1.80 MΩ•cm   |
| Total Dissolved Solids<br>(TDS) Range | 0.01 to 9.99 mg/L (ppm)<br>10.0 to 99.9 mg/L (ppm)<br>100 to 999 mg/L (ppm)<br>1.00 to 9.99 g/L (ppt)<br>10.0 to 100 g/L (ppt)  |
| Resolution                            | 0.01, 0.1, 1 mg/L ↔ g/L (ppm ↔ ppt)   |
| Accuracy                              | ± 0.1% full scale   |
| TDS Curves                            | EN27888, 442, NaCl, Linear (0.40 to 1.00)   |
| Salinity Range                        | 0.0 to 100.0 ppt / 0.00 to 10.00 %  |
| Resolution                            | 0.1 ppt / 0.01%   |
| Accuracy                              | ± 0.2% full scale   |
| Salinity Curves                       | NaCl / Seawater   |
| Calibration Option                    | Yes   |
| Temperature Range                     | -30.0 to 130.0 °C / -22.0 to 266.0 °F   |
| Resolution                            | 0.1 °C / °F   |
| Accuracy                              | ± 0.5 °C / ± 0.9 °F   |
| Calibration Option                    | Yes (± 10.0 °C / ± 18.0 °F range in 0.1 °C increments)  |
| Memory                                | 2000  |
| Auto Data Log                         | Yes   |
| Real-time Clock                       | Yes   |
| Date & Time Stamp                     | Yes   |
| Measurement Modes                     | Auto Stable / Auto Hold / Real Time   |
| Auto Shut-Off                         | Yes (Programmable: up to 30 mins.)  |
| Electrode Status                      | On screen display   |
| Diagnostics                           | Yes   |
| Password Setting                      | Yes   |
| Software Upgrade                      | Yes   |
| PC / Printer Communication            | Phono jack (USB / RS232C)   |
| Meter Inputs                          | BNC, phono, DC sockets  |
| Display                               | 5" Custom LCD with backlight and 320 segments   |
| Power Requirement                     | AC adaptor 100 - 240V, 50 - 60Hz  |
| Dimensions & Weight                   | 155(L) x 150(W) x 67(H) mm, 765g  |

# Pre-programmed with TDS and salinity curves for various applications

| TDS Curves  | Applications          |
|---|-----------------------|
| EN27888   | Environmental         |
| 442 (Na <sub>2</sub> SO <sub>4</sub> ,<br>NaHCO <sub>3</sub> ,<br>NaCl) | Boiler water, HVAC    |
| NaCl  | Aquaculture, pickling |
| Linear (KCI)  | General               |



# Stainless Steel Conductivity Cell

#### 9371-10D

Low conductivity application

Cell Constant:  $0.1~cm^{-1}$ ;  $10~m^{-1}$  Measurement Range:  $0.01~\mu S/cm$  -  $500~\mu S/cm$ ;  $1~\mu S/m$  - 50~m S/m Temp. Range (°C): 0 - 100



# Titanium Conductivity Cell

#### 9382-10D

General purpose application

Cell Constant: 1 cm<sup>-1</sup>; 100 m<sup>-1</sup>

Measurement Range: 1 μS/cm - 100 mS/cm;

0.1 mS/m - 10 S/m Temp. Range (°C): 0 - 80



#### Platinum Conductivity Cell

#### 3553-10D

High conductivity application

**Cell Constant:** 10 cm<sup>-1</sup>; 1000 m<sup>-1</sup>

Measurement Range: 10  $\mu$ S/cm - 1 S/cm; 1

mS/m - 100 S/m Temp. Range (°C): 0 - 60



Provides direct measurements of ion concentrations in various units







Records segment slope(s) and average slope after ion calibration.



Provides accurate pH and ORP readings with auto temperature compensation





| Model                      | LAQUA-ION2000 pH/ORP/lon/Temp (°C/°F) Bench Meter   |
|----------------------------|---|
| pH Range                   | -2.000 to 20.000 pH   |
| Resolution                 | 0.1 / 0.01 / 0.001 pH   |
| Accuracy                   | ± 0.003 pH  |
| pH Buffer Groups           | USA, NIST, NIST2, DIN, Custom   |
| Calibration Points         | Up to 5 (USA, NIST, NIST2) / Up to 6 (DIN, Custom)  |
| ORP Range                  | ± 2000.0 mV   |
| Resolution                 | 0.1 mV  |
| Accuracy                   | ± 0.2 mV  |
| Calibration Option         | Yes (Up to ± 200 mV)  |
| Ion Range                  | 0.000 μg/L to 9999 g/L  |
| Units                      | $\mu$ g/L $\leftrightarrow$ mg/L $\leftrightarrow$ g/L, ppm $\leftrightarrow$ ppt, mmol/L $\leftrightarrow$ mol/L |
| Resolution                 | 4 Significant digits  |
| Accuracy                   | ± 0.3% full scale or ± 0.2 mV, whichever is higher  |
| Calibration Points         | Up to 5   |
| Temperature Range          | -30.0 to 130.0 °C / -22.0 to 266.0 °F   |
| Resolution                 | 0.1 °C / °F   |
| Accuracy                   | ± 0.5 °C / ± 0.9 °F   |
| Calibration Option         | Yes ( $\pm$ 10.0 °C / $\pm$ 18.0 °F range in 0.1 °C increments)   |
| Memory                     | 2000  |
| Auto Data Log              | Yes   |
| Real-time Clock            | Yes   |
| Date & Time Stamp          | Yes   |
| Measurement Modes          | Auto Stable / Auto Hold / Real Time   |
| Offset & Slope Display     | Yes (Segment & Average Slopes)  |
| Calibration Alarm          | Yes (Programmable: up to 90 days)   |
| Auto Shut-Off              | Yes (programmable: up to 30 mins.)  |
| Electrode Status           | On screen display   |
| Diagnostics                | Yes   |
| Password Setting           | Yes   |
| Software Upgrade           | Yes   |
| PC / Printer Communication | Phono jack (USB / RS232C)   |
| Meter Inputs               | BNC, phono (ATC), DC sockets  |
| Display                    | 5" Custom LCD with backlight and 320 segments   |
| Power Requirement          | AC adaptor 100 - 240V, 50 - 60Hz  |
| Dimensions & Weight        | 155(L) x 150(W) x 67(H) mm, 765g  |

|                                 | Meter Kits  |
|---------------------------------|---|
| ION2000<br>3200912573           | <ul> <li>Meter with integrated electrode stand</li> <li>Universal power adaptor with 6 plugs</li> <li>Manual</li> </ul> |
| <b>NH3 2000-S</b> 4000052303    | <ul><li>ION2000</li><li>5002S-10C Ammonia electrode</li></ul>   |
| <b>CA 2000-S</b> 4000052304     | <ul><li>ION2000</li><li>6583S-10C Calcium electrode</li></ul>   |
| <b>CL 2000-S</b><br>4000052305  | <ul><li>ION2000</li><li>6560S-10C Chloride electrode</li></ul>  |
| <b>F 2000-S</b> 4000052306      | <ul><li>ION2000</li><li>6561S-10C Fluoride electrode</li></ul>  |
| <b>NO3 2000-S</b><br>4000052307 | <ul><li>ION2000</li><li>6581S-10C Nitrate electrode</li></ul>   |
| <b>K 2000-S</b><br>4000052308   | <ul><li>ION2000</li><li>6582S-10C Potassium electrode</li></ul>   |

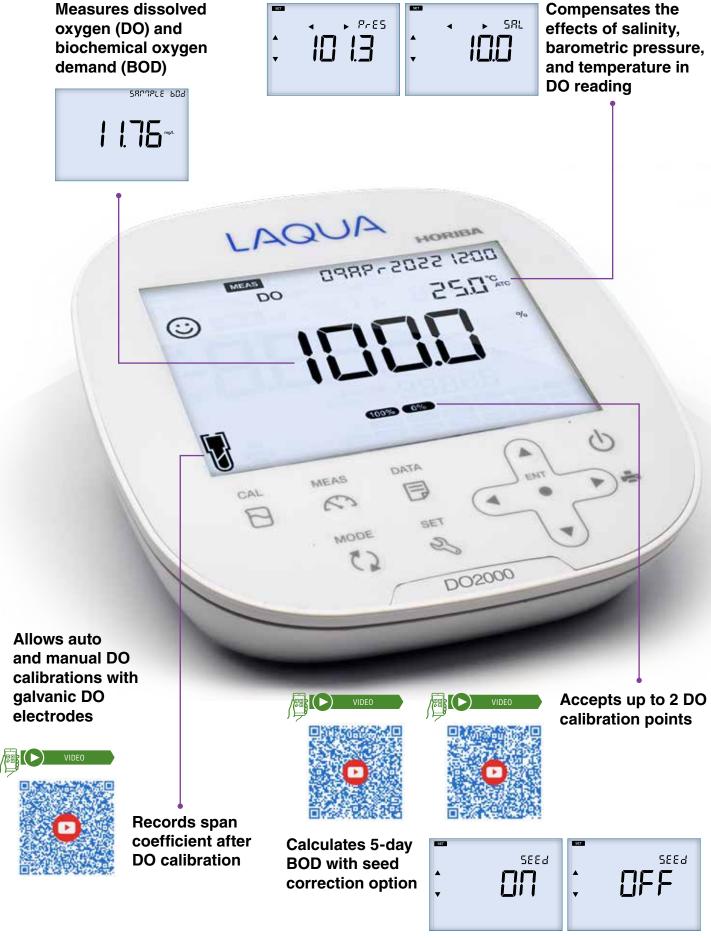


Provides a selection of ion electrode types and allows ion valence setting



**Electrode** 





|                                     | LAQUA-DO2000   |
|-------------------------------------|--|
| Model                               | DO/BOD/Temp (°C/°F)                                    |
| DO Range                            | 0.0 to 60.00 mg/L, 0.0 to 600.0%                       |
| Resolution                          | 0.01 mg/L, 0.1%  |
| Accuracy                            | +/- 0.1 mg/L , +/- 1.0%                                |
| Salinity Compensation               | 0.0 to 40.0 ppt  |
| Barometric Pressure<br>Compensation | 10.0 to 200.0 kPa                                      |
| BOD Measurement                     | 5-day BOD with seed correction option                  |
| DO Probe Type                       | Galvanic integrated with temperature sensor            |
| Calibration Points Up to 2          |  |
| Temperature Range                   | -30.0 to 130.0 °C / -22.0 to 266.0 °F                  |
| Resolution                          | 0.1 °C / °F  |
| Accuracy                            | ± 0.5 °C / ± 0.9 °F                                    |
| Calibration Option                  | Yes (± 10.0 °C / ± 18.0 °F range in 0.1 °C increments) |
| Memory                              | 2000   |
| Auto Data Log                       | Yes  |
| Real-time Clock                     | Yes  |
| Date & Time Stamp                   | Yes  |
| Measurement Modes                   | Auto Stable / Auto Hold / Real Time                    |
| Auto Shut-Off                       | Yes (Programmable: up to 30 mins.)                     |
| Electrode Status                    | On screen display                                      |
| Diagnostics                         | Yes  |
| Password Setting                    | Yes  |
| Software Upgrade                    | Yes  |
| PC / Printer Communication          | Phono jack (USB / RS232C)                              |
| Meter Inputs                        | BNC, phono (ATC), DC sockets                           |
| Display                             | 5" Custom LCD with 320 segments and backlight          |
| Power Requirement                   | AC adaptor 100 - 240V, 50 - 60Hz                       |
| Dimensions & Weight                 | 155(L) x 150(W) x 67(H) mm, 765g                       |

|                             | Meter Kits  |
|-----------------------------|---|
| <b>DO2000</b><br>3200946350 | <ul> <li>Meter with integrated electrode stand</li> <li>Universal power adaptor with 6 plugs</li> <li>Manual</li> </ul>                         |
| <b>DO2000-S</b> 3200946351  | <ul> <li>DO2000</li> <li>9521-10D DO electrode with built-in temperature sensor, replaceable DO tip, detachable adapter and stirrer*</li> </ul> |

<sup>\*</sup>Magnetic stir plate is required



#### **Galvanic DO Electrode**

#### 9521-10D

DO / BOD applications
Measurement Range: 0 - 20
mg/L, 0 - 200% D0
Temp. Range (°C): 0 - 50





**7544**DO Electrode tip for 9521-10D





Stirrer Set For 9521-10D





# Combination of ION2000 and EC2000



Multi-parameter meter with dual channel input

| Meter Kits                     |  |
|--------------------------------|--|
| <b>PC2000</b><br>3200912574    | <ul> <li>Meter with integrated electrode stand</li> <li>Universal power adaptor with 6 plugs</li> <li>Manual</li> </ul>  |
| <b>PC2000-S</b> 3200905161     | <ul> <li>PC2000</li> <li>9615S-10D refillable, glass-body pH electrode with built-in temperature sensor</li> <li>9382-10D Ti/Pt black plastic-body conductivity cell k=1.0 with built-in temperature sensor</li> <li>502-S USA pH buffers kit</li> <li>503-S Conductivity standard solutions kit</li> </ul>  |
| <b>PC2000-SN</b><br>3200905166 | <ul> <li>PC2000</li> <li>9615S-10D refillable, glass-body pH electrode with built-in temperature sensor</li> <li>9382-10D Ti/Pt black plastic-body conductivity cell k=1.0 with built-in temperature sensor</li> <li>501-S NIST pH buffers kit</li> <li>503-S Conductivity standard solutions kit</li> </ul> |

| Model                              | LAQUA-PC2000 pH/ORP/Ion/Conductivity/Resistivity/TDS/Salinity/Temp (°C/°F)   |
|------------------------------------|--|
| pH Range                           | -2.000 to 20.000 pH  |
| Resolution                         | 0.1 / 0.01 / 0.001 pH  |
| Accuracy                           | ± 20.003 pH  |
| pH Buffer Groups                   | USA, NIST, NIST2, DIN, Custom  |
| Calibration Points                 | Up to 5 (USA, NIST, NIST2) / Up to 6 (DIN, Custom)   |
| ORP Range                          | ± 2000.0 mV  |
| Resolution                         | 0.1 mV   |
| Accuracy                           | ± 0.2 mV   |
| Calibration Option                 | Yes (Up to ± 200 mV)   |
| Ion Range                          | 0.000 µg/L to 9999 g/L   |
| Units                              | $\mu$ g/L $\leftrightarrow$ mg/L $\leftrightarrow$ g/L, ppm $\leftrightarrow$ ppt, mmol/L $\leftrightarrow$ mol/L  |
| Resolution                         | 4 Significant digits   |
| Accuracy                           | ± 0.3% full scale or ± 0.2 mV, whichever is higher   |
| Calibration Points                 | Up to 5  |
| Conductivity Range                 | 0.000 to 1.999 $\mu$ S/cm (k = 0.1) 200 to 1999 $\mu$ S/cm (k = 0.1, 1, 10) 20.0 to 199.9 mS/cm (k = 1, 10) 2.00 to 199.9 $\mu$ S/cm (k = 0.1, 1, 10) 0.200 to 2.000 S/cm (k = 10) 20.0 to 199.9 $\mu$ S/cm (k = 0.1, 1, 10) |
| Units                              | Auto ranging S/cm, S/m (μS ↔ mS)   |
| Resolution                         | 0.05% full scale   |
| Accuracy                           | ± 0.6% full scale; ± 1.5% full scale > 18.0 mS/cm  |
| Reference Temperature              | 15.0 to 30.0 °C (adjustable)   |
| Temperature Coefficient            | 0.00 to 10.00 % per °C (adjustable)  |
| Cell Constants                     | 0.0700 to 13.000 (adjustable)  |
| Calibration Points                 | Up to 4 (Auto) / Up to 5 (Manual)  |
| Resistivity Range                  | 0.000 Ω∙cm to 20.0 MΩ∙cm   |
| Resolution                         | 0.5% full scale  |
| Accuracy                           | ± 0.6% full scale; ± 1.5% full scale > 1.80 MΩ•cm  |
| Total Dissolved Solids (TDS) Range | 0.01 to 9.99 mg/L (ppm) 100 to 999 mg/L (ppm) 10.0 to 100 g/L (ppt) 10.0 to 99.9 mg/L (ppm) 1.00 to 9.99 g/L (ppt)   |
| Resolution                         | 0.01, 0.1, 1 mg/L ↔ g/L (ppm ↔ ppt)  |
| Accuracy                           | ± 0.1% full scale  |
| TDS Curves                         | EN27888, 442, NaCl, Linear (0.40 to 1.00)  |
| Salinity Range                     | 0.0 to 100.0 ppt / 0.00 to 10.00 %   |
| Resolution                         | 0.1 ppt / 0.01%  |
| Accuracy                           | ± 0.2% full scale  |
| Salinity Curves                    | NaCl / Seawater  |
| Calibration Option                 | Yes  |
| Temperature Range                  | -30.0 to 130.0 °C / -22.0 to 266.0 °F  |
| Resolution                         | 0.1 °C / °F  |
| Accuracy                           | ± 0.5 °C / ± 0.9 °F  |
| Calibration Option                 | Yes (± 10.0 °C / ± 18.0 °F range in 0.1 °C increments)   |
| Memory                             | 2000   |
| Auto Data Log                      | Yes  |
| Real-time Clock                    | Yes  |
| Date & Time Stamp                  | Yes  |
| Measurement Modes                  | Auto Stable / Auto Hold / Real Time  |
| Offset & Slope Display             | Yes (Segment & Average Slopes)   |
| Calibration Alarm                  | Yes (Programmable: up to 90 days)  |
| Auto Shut-Off                      | Yes (Programmable: up to 30 mins.)   |
| Electrode Status                   | On screen display  |
| Diagnostics                        | Yes  |
| Password Setting                   | Yes  |
| Software Upgrade                   | Yes  |
| PC / Printer Communication         | Phono jack (USB / RS232C)  |
| Meter Inputs                       | 2 x BNC, 2 x phono (ATC), DC sockets   |
| Display                            | 5" Custom LCD with backlight and 320 segments  |
| Power Requirement                  | AC adaptor 100 - 240V, 50 - 60Hz   |
| Dimensions & Weight                | 155(L) x 150(W) x 67(H) mm, 770g   |

# LAQUA-PD2000 pH/ORP/Ion/DO/BOD/Temp (°C/°F)



Multi-parameter meter with dual channel input

| Meter Kits                     |  |
|--------------------------------|--|
| <b>PD2000</b><br>3200946352    | <ul> <li>Meter with integrated electrode stand</li> <li>Universal power adaptor with 6 plugs</li> <li>Manual</li> </ul>  |
| <b>PD2000-S</b> 3200946353     | <ul> <li>PD2000</li> <li>9521-10D DO electrode with built-in temperature sensor, replaceable DO tip, detachable adapter and stirrer*</li> <li>9615S-10D refillable, glass-body pH electrode with built-in temperature sensor</li> <li>502-S USA pH buffers kit</li> </ul>  |
| <b>PD2000-SN</b><br>3200946354 | <ul> <li>PD2000</li> <li>9521-10D DO electrode with built-in temperature sensor, replaceable DO tip, detachable adapter and stirrer*</li> <li>9615S-10D refillable, glass-body pH electrode with built-in temperature sensor</li> <li>501-S NIST pH buffers kit</li> </ul> |

<sup>\*</sup>Magnetic stir plate is required

| Model                            | LAQUA-PD2000  |
|----------------------------------|---|
| ******                           | pH/ORP/Ion/DO/BOD/Temp (°C/°F)  |
| pH Range                         | -2.000 to 20.000 pH   |
| Resolution                       | 0.1 / 0.01 / 0.001 pH   |
| Accuracy                         | ± 0.003 pH  |
| pH Buffer Groups                 | USA, NIST, NIST2, DIN, Custom   |
| Calibration Points               | Up to 5 (USA, NIST, NIST2) / Up to 6 (DIN, Custom)  |
| ORP Range                        | ± 2000.0 mV   |
| Resolution                       | 0.1 mV  |
| Accuracy                         | ± 0.2 mV  |
| Calibration Option               | Yes (Up to ± 200 mV)  |
| Ion Range                        | 0.000 μg/L to 9999 g/L  |
| Units                            | $\mu$ g/L $\leftrightarrow$ mg/L $\leftrightarrow$ g/L, ppm $\leftrightarrow$ ppt, mmol/L $\leftrightarrow$ mol/L |
| Resolution                       | 4 Significant digits  |
| Accuracy                         | $\pm$ 0.3% full scale or $\pm$ 0.2 mV, whichever is higher  |
| Calibration Points               | Up to 5   |
| DO Range                         | 0.0 to 60.00 mg/L, 0.0 to 600.0%  |
| Resolution                       | 0.01 mg/L, 0.1%   |
| Accuracy                         | +/- 0.1 mg/L , +/- 1.0%   |
| Salinity Compensation            | 0.0 to 40.0 ppt   |
| Barometric Pressure Compensation | 10.0 to 200.0 kPa   |
| BOD Measurement                  | 5-day BOD with seed correction option   |
| DO Probe Type                    | Galvanic integrated with temperature sensor   |
| Calibration Points               | Up to 2   |
| Temperature Range                | -30.0 to 130.0 °C / -22.0 to 266.0 °F   |
| Resolution                       | 0.1 °C / °F   |
| Accuracy                         | ± 0.5 °C / ± 0.9 °F   |
| Calibration Option               | Yes (± 10.0 °C / ± 18.0 °F range in 0.1 °C increments)  |
| Memory                           | 2000  |
| Auto Data Log                    | Yes   |
| Real-time Clock                  | Yes   |
| Date & Time Stamp                | Yes   |
| Measurement Modes                | Auto Stable / Auto Hold / Real Time   |
| Offset & Slope Display           | Yes (Segment & Average Slopes)  |
| Calibration Alarm                | Yes (Programmable: up to 90 days)   |
| Auto Shut-Off                    | Yes (Programmable: up to 30 mins.)  |
| Electrode Status                 | On screen display   |
| Diagnostics                      | Yes   |
| Password Setting                 | Yes   |
| Software Upgrade                 | Yes   |
| PC / Printer Communication       | Phono jack (USB / RS232C)   |
| Meter Inputs                     | 2 x BNC, 2 x phono (ATC), DC sockets  |
| Display                          | 5" Custom LCD with 320 segments and backlight   |
| Power Requirement                | AC adaptor 100 - 240V, 50 - 60Hz  |
|                                  |   |
| Dimensions & Weight              | 155(L) x 150(W) x 67(H) mm, 770g  |

# Solutions & Accessories

|            |         | pH Buffers  |
|------------|---------|---|
| Part No.   | Model   | Description   |
| 3999960015 | 501-S   | NIST pH Buffers Kit (pH 4.01, 6.86, 9.18 buffers & 3.33M KCI, 250ml each) |
| 3999960016 | 502-S   | USA pH Buffers Kit (pH 4.01, 7.00, 10.01 buffers & 3.33M KCI, 250ml each) |
| 3999960028 | 500-2   | pH 1.68 Buffer at 25°C, 500ml   |
| 3999960029 | 500-4   | pH 4.01 Buffer at 25°C, 500ml   |
| 3999960030 | 500-686 | pH 6.86 Buffer at 25°C, 500ml   |
| 3999960031 | 500-7   | pH 7.00 Buffer at 25°C, 500ml   |
| 3999960032 | 500-9   | pH 9.18 Buffer at 25°C, 500ml   |
| 3999960033 | 500-10  | pH 10.01 Buffer at 25°C, 500ml  |
| 3999960034 | 500-12  | pH 12.46 Buffer at 25°C, 500ml  |

| Conductivity Standards |        |   |
|------------------------|--------|---|
| Part No.               | Model  | Description   |
| 3999960017             | 503-S  | Conductivity Standard Solutions Kit (84µS/cm, 1413µS/cm, 12.88mS/cm & 111.8mS/cm, 250ml each) |
| 3999960035             | 500-21 | 84μS/cm Conductivity Standard Solution at 25°C, 500ml   |
| 3999960036             | 500-22 | 1413µS/cm Conductivity Standard Solution at 25°C, 500ml                                       |
| 399960037              | 500-23 | 12.88mS/cm Conductivity Standard Solution at 25°C, 500ml                                      |
| 399960038              | 500-24 | 111.8mS/cm Conductivity Standard Solution at 25°C, 500ml                                      |

| ORP Standard Solution & Powders |         |  |     |
|---------------------------------|---------|--|-----|
| Part No.                        | Model   | Description  |     |
| 4000047848                      | 500-225 | ORP Standard Solution 225 mV at 25°C, 500              | 0ml |
| 3200043618                      | 160-51  | ORP Powder 89 mV at 25°C (for 250ml), 10 sachets/pack  |     |
| 3200043617                      | 160-22  | ORP Powder 258 mV at 25°C (for 250ml), 10 sachets/pack |     |

| Ion Standard Solutions |            |  |
|------------------------|------------|--|
| Part No.               | Model      | Description                                      |
| 3200697171             | 500-NH4-SH | 1000 mg/L Ammonium Ion Standard Solution, 500ml  |
| 3200697172             | 500-NH4-SL | 100 mg/L Ammonium Ion Standard Solution, 500ml   |
| 3200697175             | 500-CA-SH  | 1000 mg/L Calcium Ion Standard Solution, 500ml   |
| 3200697176             | 500-CA-SL  | 100 mg/L Calcium Ion Standard Solution, 500ml    |
| 3200697167             | 500-CL-SH  | 1000 mg/L Chloride Ion Standard Solution, 500ml  |
| 3200697168             | 500-CL-SL  | 100 mg/L Chloride Ion Standard Solution, 500ml   |
| 3200697163             | 500-F-SH   | 1000 mg/L Fluoride Ion Standard Solution, 500ml  |
| 3200697164             | 500-F-SL   | 100 mg/L Fluoride Ion Standard Solution, 500ml   |
| 3200697179             | 500-NO3-SH | 1000 mg/L Nitrate Ion Standard Solution, 500ml   |
| 3200697180             | 500-NO3-SL | 100 mg/L Nitrate Ion Standard Solution, 500ml    |
| 3200697183             | 500-K-SH   | 1000 mg/L Potassium Ion Standard Solution, 500ml |
| 3200697184             | 500-K-SL   | 100 mg/L Potassium Ion Standard Solution, 500ml  |



502-S USA pH Buffers Kit



503-S Conductivity Standard Solutions Kit



ORP Standard Solution



Calcium Ion Electrode Solutions



Chloride Ion Electrode Solutions



Fluoride Ion Electrode Solutions



Potassium Ion Electrode Solutions



Ammonia Ion Electrode Solutions



Nitrate Ion Electrode Solutions

| Ionic Strength Adjustors |             |  |          |
|--------------------------|-------------|--|----------|
| Part No.                 | Model       | Description                              |          |
| 3200697174               | 500-NH3-ISA | Ammonia Ionic Strength Adjustor, 500ml   | <u>;</u> |
| 3200697178               | 500-CA-ISA  | Calcium Ionic Strength Adjustor, 500ml   |          |
| 3200697170               | 500-CL-ISA  | Chloride Ionic Strength Adjustor, 500ml  |          |
| 3200697166               | 500-F-TISAB | Fluoride Ionic Strength Adjustor, 500ml  |          |
| 3200697182               | 500-NO3-ISA | Nitrate Ionic Strength Adjustor, 500ml   |          |
| 3200697186               | 500-K-ISA   | Potassium Ionic Strength Adjustor, 500ml |          |

| Electrode Filling Solutions |             |  |
|-----------------------------|-------------|--|
| Part No.                    | Model       | Description  |
| 3999960023                  | 525-3       | 3.33M KCl pH / ORP Electrode Filling Solution, 250ml |
| 3200043640                  | 300         | 3.33M KCl pH / ORP Electrode Filling Solution, 250ml |
| 3200697173                  | 500-NH3-IFS | Ammonia Electrode Filling Solution, 500ml            |
| 3200697177                  | 500-CA-IFS  | Calcium Electrode Filling Solution, 500ml            |
| 3200697169                  | 500-CL-IFS  | Chloride Electrode Filling Solution, 500ml           |
| 3200697165                  | 500-F-IFS   | Fluoride Electrode Filling Solution, 500ml           |
| 3200697181                  | 500-NO3-IFS | Nitrate Electrode Filling Solution, 500ml            |
| 3200697185                  | 500-K-IFS   | Potassium Electrode Filling Solution, 500ml          |

| pH Electrode Cleaning Solutions |       |  |
|---------------------------------|-------|--|
| Part No.                        | Model | Description  |
| 3014028653                      | 220   | Electrode Cleaning Solution (for general contaminants), 50ml x 2   |
| 3200530494                      | 230   | Electrode Cleaning Solution (for rejuvenating electrode) includes Solution A (30ml) & Solution B (100ml) |
| 3200366771                      | 250   | Electrode Cleaning Solution (for protein contaminants), 400ml  |

|            | Accessories  |
|------------|--|
| Part No.   | Description  |
| 3200861022 | Integrated Electrode Stand for LAQUA 2000 Series Bench Meters                    |
| 3014028368 | X-51 pH/mV/Ion/DO/Temperature Digital Simulator                                  |
| 3014028370 | X-52 Conductivity/Temperature Digital Simulator                                  |
| 3200869791 | Universal power adaptor  |
| 3014030146 | 120V Printer with paper (printer cable is sold separately)                       |
| 3014030147 | 230V Printer with paper (printer cable is sold separately)                       |
| 3200779639 | PC Cable (1.5m phono to USB cable for connecting meter to PC)                    |
| 3200779638 | Printer Cable (1.5m phono to 25-pin D-sub cable for connecting meter to printer) |
| 3014030149 | Printer Paper, 20 rolls  |
| 3014030150 | Printer Ink Ribbon, 5pcs/pack  |





Cleaning Solutions



Integrated Electrode Stand for LAQUA 2000 Series Bench Meters





X-51 Digital Simulator

X-52 Digital Simulator



25-pin D-Sub Printer (RS232) cable (Meter to Printer)



PC (USB) cable (Meter to Computer)



Printer ink ribbon



Printer paper



Printer

With over 60 years of engineering excellence, HORIBA's diverse range of water quality analyzers and electrodes are ideal for everyday laboratory needs through to the most demanding of applications. Visit our website for a wealth of useful information and water quality measurement tips to help you obtain the best results in your work.





#### **Benchtop Meters**

Developed using extensive feedback from users, our new LAQUA meters deliver the best solution for water quality analysis. Our LAQUA website features an online 'Selection Guide' to enable you to find the perfect LAQUA meter and electrode for your need.



#### **Handheld Meters**

In the lab, in the field or anywhere you need it. LAQUA Handheld meters are designed for use with one hand and with an IP67 waterproof rating and shock-resistant casing. Meters can be used for long periods, even in dark places, making it ideal for field measurements in rivers and lakes.



#### **Electrodes**

Various electrodes to match any application. A wide range of products for both benchtop and portable systems are available, including easy and reliable standard models, applicationfocused models for small samples or large containers, and special electrodes for specific sample characteristics.



#### **Pocket Meters**

Analyzing water quality is simplified when using our LAQUAtwin range of meters. Designed to produce accurate and reliable results. Anyone, anywhere, at any time can measure samples easily with a LAQUAtwin meter. See just how good they are at our website.





LAQUAtwin pocket meters offer quick and convenient alternative to analyze important parameters with high accuracy. Several application notes are available at (http://goo.gl/znwE6i) detailing the use of LAQUAtwin and the results achieved for the respective applications. Additional application notes will be added when available.





Visit the HORIBA LAQUA Singapore Channel on YouTube and subscribe to see more of our videos.









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HORIBA Instruments (Singapore) Pte. Ltd. 83 Science Park Drive, #02-02A, The Curie, Singapore 118258 Phone: 65 6908-9660 Fax: 65 6745-8155 e-mail: laqua@horiba.com

■ Europe, Middle East, & Africa **HORIBA UK Limited** Kyoto Close, Moulton Park,

Northampton NN3 6FL Phone: +44 1604 642500 e-mail: waterquality@horiba.com

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