













PoolPro PS9 Quick Start Guide

Handheld Conductivity, Mineral / Salt Concentration, TDS, ORP, Hardness, Alkalinity, LSI, Free Chlorine, pH, and Temperature Meter

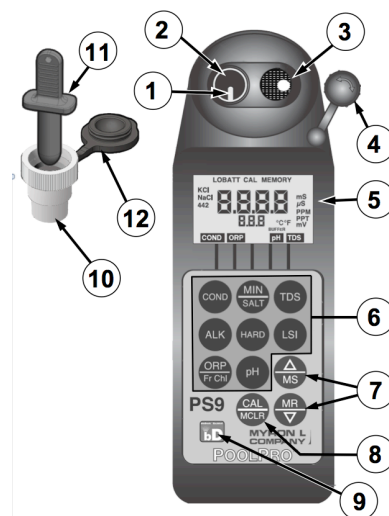
This Quick Start Guide is for the Myron L® Company Pool Pro Model PS9. Download the full PS9 Operation Manual (P/N PS9OM) from www.myronl.com to get more detailed instructions for taking measurements (including Alkalinity Hardness and LSI calculation), storing or recalling measurements, changing instrument settings, maintenance procedures, calibration procedures, Troubleshooting Guide and FACTORY CAL reset.

QUICK REFERENCE INSTRUCTIONS

-        Press and release any one of these buttons to turn on the PS9 and begin taking measurements.
-  Press  to calculate LSI.
-  Press and release the CAL/MCLR button to calibrate (CAL) the active measurement parameter or press and hold to clear displayed memory location (MCLR).
-  Press and release to store (MS) a measurement or move upward on the list of stored measurements (Location 1 to 100) while in memory recall mode.
-  Press and release to view the most recent stored measurements or move downward on the list of stored measurements (Location 100 to 1). Also used to enter Settings Mode.

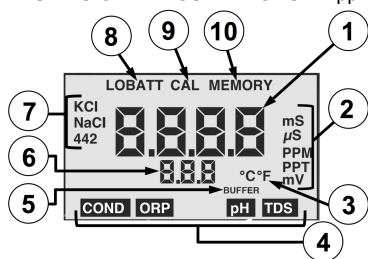
PS9 FEATURES

- TEMPERATURE SENSOR** – Houses thermistor for making temperature measurements.
- CONDUCTIVITY CELL** – Contains electrodes that generate a flux field in defined area for all measurements except pH, ORP, and FC^E.
- pH SENSOR** (user replaceable) – Measures test sample's hydrogen ion concentration. The reference junction is located under the glass bulb.
- pH SENSOR PROTECTIVE CAP** – Snaps in place to protect pH Sensor when not in use and seals in Storage Solution.
- LCD DISPLAY** – Displays measurements, units of measure, active measurement mode, current solution mode setting, low battery warning (LOBATT), and other information (see below).
- MEASUREMENT KEYS** – Press and release any one of these to turn on the PS9 and begin taking measurements.
- FUNCTION KEYS** – Press and release to store the current measurement (MS), recall a stored measurement (MR). Also used to move between memory locations and to select various mode settings.
- CAL/MEMORY CLEAR KEY** – Use to calibrate (CAL) the active measurement parameter, enter or clear the contents of the currently displayed memory location (MCLR).
- BLUETOOTH SYMBOL** – Indicates that this PoolPro PS9 is equipped with Myron L® Company's optional wireless transceiver for wireless data download.
- CELL EXTENDER** – Holds sample and reagents during Alkalinity and Hardness measurements.
- PLUNGER** – Used to create proper cell cup volume of liquid during Alkalinity and Hardness measurements.
- CELL EXTENDER CAP** – Seals cell extender while mixing sample and reagents during Alkalinity and Hardness measurements.



LCD DISPLAY

- MAIN VALUE DISPLAY** – Displays the current measurement value and settings menu information. During Alkalinity & Hardness titrations, prompts appear here at various stages of the process.
- UNITS OF MEASURE ICONS** – Appropriate icon appears to show the units of measure for the current measurement.



- TEMPERATURE UNITS OF MEASURE** – Displays °C (Celsius) or °F (Fahrenheit) based on setting selected for Temperature readings.
- MEASUREMENT ICONS** – Appropriate icon appears to show what type of measurement is being made.
- BUFFER ICON** – Appears when the PS9 is in pH Calibration mode to indicate that the instrument is expecting a pH buffer solution.
- TEMPERATURE DISPLAY** – Displays the temperature of the sample solution, memory location number (1 to 100) or buffer during pH calibration.
- SOLUTION MODE ICONS** – Appropriate icon appears to indicate the current solution temperature compensation mode setting for Conductivity, Min/Salt and TDS measurements.
- LOBATT ICON** – Appears when the PS9's battery requires replacement.

- CAL ICON** – Appears when the PS9 is in Calibration mode.
- MEMORY ICON** – Appears to indicate that the values and icons being displayed are for a measurement stored in the PS9's memory (NOT a live measurement).

OPERATING INSTRUCTIONS

DEFAULT SETTINGS:

- Temperature Units:** °C (Temperature is displayed in Degrees Celsius)
- Solution Mode: Conductivity – KCl**


MEASUREMENT SETUP: Before you take a reading, make sure the PS9 is clean, calibrated, and if measuring COND or TDS, that the desired solution mode has been selected (See Section II of Operating Instructions, below). The sample solution must also be within the specified range.

I. MEASUREMENT


- Rinse and empty the appropriate sensor (conductivity or pH / ORP) 3 times with sample to be measured.
- Fill with test sample.
- Press appropriate Measurement Key:



 COND to measure CONDUCTIVITY
0-9999 MICROSIEMENS (µS/cm), 10-200 (mS)/cm


 TDS: Measures TOTAL DISSOLVED SOLIDS
0-9999 parts per million (ppm), 10-200 (ppt)

 MIN / SALT: Same as TDS but displays in
0 - 200 parts per thousand (ppt).

 ORP: Measures Oxidation Reduction Potential (REDOX) ± 999 mV

 pH: Measures 0-14 pH

  Press one of these to preform an Alkalinity or Hardness measurement.

 Press to calculate LSI. Uses stored or hypothetical Alkalinity and Hardness data.

- For complete instructions on performing these measurements, download the full PoolPro PS9 Operation Manual and watch our YouTube videos (*Search for: Ultrameter III 9P and 9PTK*).

PoolPro PS9 Quick Start Guide

Handheld Conductivity, Mineral / Salt Concentration, TDS, ORP, Hardness, Alkalinity, LSI, Free Chlorine, pH, and Temperature Meter

NOTES:

- When finished making Conductivity, TDS, MIN/SALT ALK or HARD measurements, rinse the cell cup with clean water (preferably DI, RO, or distilled).
- When finished measuring pH, ORP or FC^E, rinse sensor well with clean water (preferably DI, RO, or Distilled), refill it with Myron L Storage Solution then reinstall protective cap.

II. Solution Mode Selection

- Press , or to select which parameter is having its solution type changed.

- Press and hold about 3 seconds or until "SEL" appears on the display.
- Use the or key to select type of solution desired. The possible solution types are KCl, NaCl or 442™ (a Myron L® Company natural water).
- Press to accept new solution type.

CALIBRATION

CALIBRATION SOLUTIONS

| Mode | Standard Solution or Buffer |
|---|--|
| Conductivity KCl | KCl: 7000 µS |
| TDS 442™ TDS NaCl & MIN/SALT | 442™: 3000 PPM <i>Displays as 2027 ppm in TDS NaCl or MIN/SALT mode</i> |
| pH and FC ^E | 4.0, 7.0 and 10.0 buffer |
| Alkalinity | 100 ppm Alkalinity Standard Solution |
| Hardness | 200 ppm Hardness Standard Solution |
| FC ^E ORP calibration is electronic and based on pH Cal Results | |

I. CONDUCTIVITY, MIN /SALT OR TDS CALIBRATION

- Rinse cell cup 3 times with proper standard solution.
- Refill cell cup with fresh, standard solution.
- Press , or , then press , "CAL" will appear.
- Press or until display agrees with standard solution.
- Press to accept value.

NOTE: A deviation of more than 10% from standard solution value will produce a "FAC" on the display. Press to accept factory calibration, or clean the cell and recalibrate.

ALKALINITY and HARDNESS CALIBRATION

- For complete instructions on performing these measurements, download the full PoolPro PS9 Operation Manual.

III. pH/ CALIBRATION

- Rinse sensor well 3 times with 7.0 buffer solution.
- Refill sensor well with 7.0 buffer solution.
- Press then , "CAL", "7" and "BUFFER" will appear on the display.
- Press or until display agrees with buffer value.
- Press once to accept the value.
- Rinse 3 times with either ACID (Acid) (pH 1- 6) or BASE (BAS) (pH 8-14) buffer solution.
- Refill and repeat steps 4 & 5.
- Rinse 3 times with opposite buffer solution, refill and repeat steps 4 & 5 or press to exit.
- When calibration is complete, refill sensor well with Myron L Storage Solution or a high KCl solution and reinstall cap.

IV. ORP/ FC^E CALIBRATION

- ORP electrodes rarely give false readings without problems in the reference electrode.
- For this reason, and because calibration solutions for ORP are highly reactive and potentially hazardous, your PoolPro has an electronic ORP calibration.
- This causes the zero point on the reference electrode to be set whenever pH 7 calibration is done.

MAINTENANCE

I. BATTERY REPLACEMENT (LOBATT)

- Clean and dry Instrument THOROUGHLY.
- WARNING:** ONLY open PS9 in a clean, dry environment!
- Remove the four (4) bottom screws.
- Open instrument CAREFULLY.
- Carefully detach battery from circuit board.
- Replace with 9-volt alkaline battery.
- Replace bottom, ensuring the sealing gasket is installed in the groove of the top half of case.
- Re-install the 4 screws, tightening them evenly and securely.

II. CAUTIONS

- Solutions in excess of 71°C/160°F should not be placed in the cell cup area; this may cause damage.
- The pH sensor may fracture if the PS9 temperature is allowed to go below 0°C/32°F.
- The Conductivity cell cup should be kept as clean as possible. Flushing with clean water following use will prevent buildup on electrodes. If very dirty samples (particularly scaling types) are allowed to dry in the cell cup, a film will form reducing accuracy.

- The pH sensor in your PS9 should not be allowed to dry out.
- Whenever the pH sensor is not in use make sure it is filled with Myron L® Company Storage Solution and that the protective cap is in place.

III. CLEANING SENSORS

A. Conductivity, TDS, MIN/SALT, ALK, HARD, and LSI

- When there are visible films of oil, dirt, or scale in the cell cup or on the electrodes or if readings are not as expected, use isopropyl alcohol or a foaming non-abrasive household cleaner.
- Rinse out the cleaner, and your PS9 is ready for accurate calibration then measurements.

- B. pH:** If the pH sensor dries out or becomes dirty, it may be cleaned and/or reconditioned. For instructions on performing these operations, download the full PS9 Operation Manual from the Myron L® Company website.

IV. pH Sensor Replacement

Order model RPR. Be sure to include the model and serial number of your instrument to ensure receipt of the proper type. **NOTE:** Complete installation instructions are provided with each replacement sensor.

SPECIFICATIONS

| Spec | pH | CONDUCTIVITY | TDS & MIN / SALT | ORP | ALKALINITY | HARDNESS | LSI | FC ^E | TEMP |
|-----------------|-----------|---|--|----------|------------------------------|-------------------------------|------------|--|----------------------------|
| Ranges | 0-14 pH | 0 - 9999 µS/cm; 10 - 200 mS <i>In 5 autoranges</i> | 0 - 9999 ppm; 10 - 200 ppt <i>In 5 autoranges</i> | ± 999 mV | 10-800ppm | 0-1710 ppm (0-100 grains) | -10 to +10 | 0.00 - 9.99 ppm ORP = 350mV - 725 mV, <9.9 pH ORP = 725 mV - 825 mV, <8.9 pH | 0°C - 71°C 32°F - 160°F |
| Resolution | 0.01 pH | 0.01 < 100 µS 0.1 (<1000µS) 1.0 (<10 mS) 0.01 < 100 mS) 0.1 mS (≥ 100 & < 200 mS) | 0.01 < 100 ppm 0.1 (<1000 ppm) 1.0 (<10 ppt) 0.01 < 100 ppt) 0.1 (≥ 100 & < 200 ppt) | ±.1 mV | 0.1(<100 ppm) 1(<800 ppm) | 0.1(<100 ppm) 1(<1710 ppm) | 0.1 | 0.01 ppm | 0.1 °C / °F |
| Accuracy | ± 0.01 pH | ±1% of reading | | ±.1 mV | | | | ± 0.3 ppm <1.0 ppm ± 0.2 ppm ≥1.0 ppm | ±0.1 °C / °F |
| COND/TDS Ratios | | Programmed: KCl, NaCl or 442™ Adjustable 0.20 -07.99 | | | | | | | |
| Temp Co | | Auto: 0-71°C, 32-160°F Adjustable (COND & TDS) 0 - 9.99% / °C | | | | | | | |

