

ULTRAPEN™ PT3 – Quick Start Guide

ORP and Temperature Pen

For a complete set of operating instructions, maintenance procedures, calibration procedures, and the **FACTORY CAL** reset procedure download the full PT3 Operation Manual from www.myronl.com.

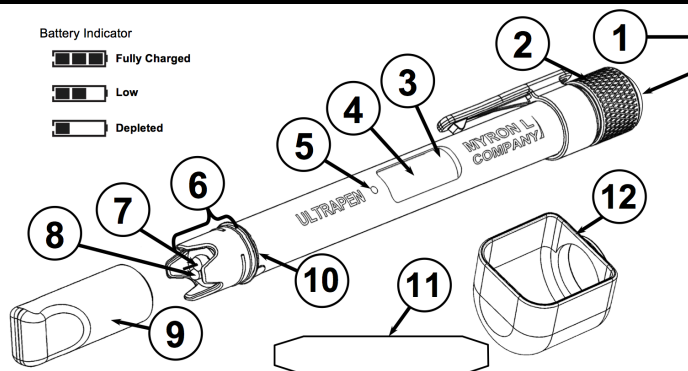
QUICK REFERENCE INSTRUCTIONS

1. Press and release Push Button to turn ON the PT3.
2. LED flashes rapidly: Dip pen in sample solution so sensor is totally submerged.
3. LED flashes slowly: Swirl pen in sample, keeping sensor submerged. Avoid contact with sides/bottom of container.
LIVE Mode: Display will alternate between live pH and temperature readings. Note readings for your records.
HOLD Mode: LED turns Solid ON when Measurement is complete then pen turns OFF.

NOTE: After turning the PT3 ON, press and hold the push button to enter either the calibration or configuration mode.

FEATURES

1. **PUSH BUTTON** – Press to turn PT3 ON and select mode settings.
2. **BATTERY CAP** – Unscrew to access battery for replacement.
3. **BATTERY INDICATOR** – Shows battery charge level.
4. **DISPLAY** - Displays measurements and menu options.
5. **LED INDICATOR LIGHT** - Tells the user when to dip & swirl PT3 during measurements and calibration.
6. **ORP SENSOR** – Contains ORP and Temperature sensor apparatus.
7. **PLATINUM ELECTRODE** – Measures oxidation-reduction potential (ORP) or redox of solution.
8. **THERMISTOR** – Measures test sample's temperature.
9. **SOAKER CAP** – Contains a sponge soaked in Sensor Storage Solution to maintain sensor hydration.
 - To remove, twist the cap and pull off. Do not spill the Storage Solution.
 - To store the PT3 between uses, fill the cap until sponge is covered. Twist the cap while pushing it onto the ORP Sensor. Do not over fill the cap or excess solution may squirt out.
10. **CAP STOP** – **DO NOT** push the Soaker Cap beyond the Cap Stop as sensor damage could occur.
11. **ORP ELECTRODE CLEANING PAPER** – **For deep cleaning the platinum electrode.**
12. **SCOOP** – Used to hold sample solution when dipping is not possible. To install, push the scoop onto the sensor while shifting side-to-side. To remove, pull the scoop off while shifting side-to-side. Verify the sensor remained fully inserted into the PT3. If not, download the full PT3 Operation Manual from the Myron L® Company website for instructions on reinstalling the Sensor. To use, hold the scoop directly under a vertical stream during measurement, avoiding bubbles.



PT3 DEFAULT SETTINGS

Temperature Units: °C (Temp. value alternates on Display with ORP value)

Measurement Mode: HOLD

NOTE: For instructions on changing the temperature units to °F or switching the PT3 to LIVE measurement mode download the full PT3 Operation Manual from the Myron L® Company website.

OPERATING INSTRUCTIONS

I. MEASUREMENT SETUP: The following steps should be taken prior to performing a measurement with your PT3:

1. Make sure the pen is clean
2. Myron L® Company recommends that you calibrate the PT3 before taking measurements (See section III).

II. NORMAL OPERATION: CAUTION: To measure solutions at the extremes of the specified temperature range, allow the pen to equilibrate by submerging the sensor in the sample solution for 1 minute prior to taking a measurement.

NOTE: When testing a vertical stream of sample, use the scoop. Recalibrate the pen using the scoop to for best results.

1. Rinse the sensor by swirling it in a container of fresh sample solution or for approximately 30 seconds.
 - If using the scoop, hold the scoop under the sample stream for approximately 30 seconds
2. Remove the PT3 from rinse and pat it dry with a clean cloth or tissue.
3. Refill the sample container with fresh test sample.
4. Push and release the push button to turn the PT3 ON.
5. Grasp the pen near the battery cap to avoid sample contamination.
6. Swirl the PT3 in the sample solution while measurement is taking place.
 - If you do not submerge the sensor in solution before the flashing slows, allow the pen to power OFF and retake the reading.
 - If possible, keep the pen at least 1 inch (2½ cm) away from sides/bottom of container, if applicable.
7. The following table explains how to follow LED prompts during measurement and shows the duration of each prompt:

| LED SIGNAL | ACTION | DURATION |
|------------------------------|---|--|
| Rapid Flashing | Dip pen in test sample and swirl. | 6 sec |
| Slow Flashing | Measurement in process; continue to swirl. <ul style="list-style-type: none">• In HOLD mode real-time readings are displayed until the LED turns ON solid.• In LIVE mode real-time readings are displayed until the PT3 turns OFF. | 10 - 45 sec in Hold mode Up to 5 min in LIVE mode |
| Solid Light (Hold mode only) | Measurement is complete. Values are displayed until the PT3 turns OFF. | 6 sec |

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III. CALIBRATION: Myron L® Company recommends performing a calibration of the PT3 twice a month or any time measurements are not as expected.

- The PT3 has embedded automatic temperature compensation in calibration mode (from 15°C to 30°C) for three calibration solutions (80 mV and 260 mV Quinhydrone as well as 470 mV Light's Solution).
For more information, visit www.myronl.com/pt3.htm.
- Small bubbles trapped in the sensor may give a false calibration.

1. Rinse the PT3 sensor in ORP solution.
 - The PT3 will automatically identify which ORP standard solution you are using.
2. Press and release the push button to turn the PT3 ON.
3. Push and Hold the button down.
4. Release the button when "CAL" is displayed.
5. Grasp the pen near the battery cap to avoid sample contamination.
6. While the LED flashes rapidly, dip the pen in fresh sample solution so that the sensor is completely submerged.
 - If you do not submerge the sensor in solution before the flashing slows, allow the pen to power OFF and retake the reading.
7. While the LED flashes slowly, swirl the pen around to remove bubbles, keeping the sensor submerged.
 - If possible, keep the pen at least 1 inch (2½ cm) away from sides/bottom of container.
8. When the LED turns ON solid, remove the pen from solution.
 - The display will read "CAL SAVED" and the PT3 will turn OFF.
 - If "Error" appears on the display, check to make sure you are using a proper, Myron L® Company, ORP Standard Solution.
 - If the solution is correct, clean the sensor, as described in the full PT3 Operation Manual downloadable from the Myron L® Company website.

FACTORY CALIBRATION: Factory Calibration (FAC CAL) resets the PT3 to its factory settings. For instructions on how to perform a FAC CAL download the full PT3 Operation Manual from the Myron L® Company website.

MAINTENANCE

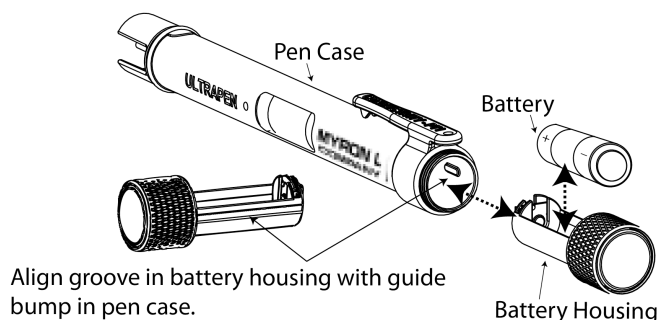
I. BATTERY REPLACEMENT:

1. In a clean, dry place unscrew the battery cap in a counter-clockwise motion.
2. Slide the cap and battery housing out of the pen.
3. Remove the depleted battery from its housing.
4. Insert a new battery into the battery housing oriented with the negative end touching the spring.
5. Align the groove along the battery housing with the guide bump inside the pen case and slide the battery housing in.
6. Screw the pen cap back on in a clockwise direction. Do not over tighten.

II. ROUTINE MAINTENANCE

1. After each use, **ALWAYS** rinse the sensor with clean water (preferably DI, RO, or purified water), then carefully blot the sensor with a soft, clean cloth to remove any water drops.
2. **ALWAYS** replace the Soaker Cap (filled half way with Myron L® Company Storage Solution) on the sensor after each use. **DO NOT** push the cap past the Cap Stop.
3. Do not drop, throw or otherwise strike the PT3. This voids the warranty.
4. Do not store the PT3 in a location where the ambient temperatures exceed its specified Operating/Storage Temperature limits.

II. SENSOR CLEANING AND REPLACEMENT: For sensor cleaning and conditioning instructions download the full PT3 Operation Manual from the Myron L® Company website.



SPECIFICATIONS

| | | | |
|------------------------|---|---|--|
| Measurement Ranges | ORP-1000mV – 1000mV, Temp: 0°-71° C / 32-160° F | ORP Accuracy | ± 10mV |
| Resolution | ORP 1mV, Temp: ± 0.1°C / ± 0.1°F | Temp. Accuracy | ± 0.1°C / ± 0.1°F |
| Operating/Storage Temp | 0° - 55°C / 32° - 131°F | Calibration Solutions | 80mV, 260mV, 470mV |
| Temp Compensation | Automatic In Calibration Mode From 15°C to 30°C | Time to Stable Reading | 10 - 45 seconds |
| Power Consumption | Active Mode: 37 mA, Sleep Mode: 2 µA | Battery Type | N type, Alkaline 1.5 V |
| Physical Dimensions | 17.15 cm L x 1.59 cm D or 6.75 in. L x .625 in. D; Weight: 50.4g / 1.78oz. | Case: | Anodized Aircraft Aluminum with Protective Coating |
| Water Resistance | IP67 and NEMA 6 | EN61236-1: 2006 - Annex A: 2008; Electrostatic discharge to case of instrument may cause PT3 to spontaneously power ON. In this case, the PT3 will power OFF after several seconds. | |



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