Quick Start Guide: ULTRAPENx2™ PTBT1 with the Ultrapen PTBTX2™ APP
Conductivity / TDS / Salinity and Temperature Pen for Use with your Mobile Device

TO DOWNLOAD THE NEW PTBTX2™ APP
1. PEN BUTTON – Press to turn the PTBT1 ON and place it in STANDBY Mode.
2. BATTERY CAP – Unscrew to change battery.
3. LED INDICATOR LIGHT – Flashes rapidly when the PTBT1 is MEASURING and once every 5 seconds when the PTBT1 is in STANDBY Mode.
4. CONDUCTIVITY CELL – Includes stainless steel conductivity electrodes and a temperature sensor.
5. CAP STOP – Pushing the protective cap beyond the cap stop may damage the cell.
6. PROTECTIVE CAP – Protects cell from damage when not in use.
7. SCOOP – Used to hold sample solution when dipping is not possible.

PTBTX2™ APP – FEATURE NAVIGATION BAR
This bar appears at the bottom of all screens. The buttons in this bar are used to navigate between the App’s main functional areas.

MEASUREMENT – Returns the App to the Measurement screen.
MEMORY RECALL – Displays a list of saved measurements.
CALIBRATION – Places the App in Calibration Mode.
CONNECT – Opens the App’s Bluetooth Connect / Disconnect screen.
PREFENCES – Opens the App’s Preferences & Settings Modes, including an internet link to a full Operation Manual (HELP).

USING THE PTBT1
STEP 1 – CONNECT THE PTBT1 TO THE APP
1. On your Device’s Home Screen, tap the blue PTBTX2 icon.
2. Tap the CONNECT button at the bottom of the App display.
3. The App will switch to the CONNECT Screen.
4. Press and release the PEN BUTTON to turn PTBT1 ON.

5. Tap the PTBT1’s name when it appears. Default: MLC-PTBTX2
6. Tap the PTBT1’s name when it appears.
7. The PTBT1 will move to the top of the list and a check mark will appear.

CHANGE THE PTBT1 SOLUTION MODE
1. Press and release the PEN BUTTON on the PTBT1 to turn it ON and place it into STANDBY Mode.
2. Tap the PREFERENCES button in the Feature Navigation Bar.
3. Tap the line that says Ultrapen Settings.
4. Tap the Solution Mode line on the screen.
5. The App will display the current Mode setting.
6. Select a Solution Mode from the list, then tap APPLY.

EXPORTING DATA RECORDS
1. Tap the MEMORY RECALL button in the Feature Navigation Bar.
2. Tap the EDIT button in the upper right corner of the Record List. The Record List Edit screen will appear.
3. Tap individual records to select them for export, or tap the BLUE, SELECT ALL button to select the entire record list.
4. As you select records the CLEAR and DELETE buttons update to show the number of records selected.
5. Tap the SEND button in the upper right corner of the Record List. The default email program for your mobile device will open.
6. An attachment will be present containing the selected records.
   • The format of the attachment will be either .csv (default), .xls or .xlsx.
   • The format for attachments can be changed by opening the PREFERENCES > APPLICATION PREFERENCE screen.
7. Complete the email in the standard manner for your email application.

BATTERY REPLACEMENT
When the PTBT1 charge level falls below 25%, immediately replace the battery with a new N type battery.
1. In a CLEAN DRY place unscrew the battery cap in a counter-clockwise direction.
2. Slide the cap and battery housing out of the PTBT1.
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 PTBT1 case and slide the battery housing back in.
6. Screw the PTBT1 battery cap back on in a clockwise direction. Do not over tighten.

ROUTINE MAINTENANCE
• After each use ALWAYS rinse the cell with clean water (preferably DI, RO, or purified water).
• ALWAYS replace the Protective Cap on the cell after each use. DO NOT push the cap past the Cap Stop.
• Do not drop, throw, or otherwise strike the PTBT1.
• Do not store the PTBT1 in a location where the ambient temperatures exceeds its Operating/Storage Temperature limits.

MAINTENANCE

EXTRACTION MADE EASY

PATENT PENDING 2019
Quick Start Guide: ULTRAPENx2™ PTBT1 with the Ultrapen PTBTX2™ APP
Conductivity / TDS / Salinity and Temperature Pen for Use with your Mobile Device

STEP 2 – MAKE A MEASUREMENT
1. Dip the PTBT1 cell in the Sample solution.
2. Tap the MEASUREMENT button in the Feature Navigation Bar.
3. If the PTBT1 is OFF this screen will appear.
4. Press the button on the PTBT1.
5. If the PTBT1 is ON and in STANDBY Mode, this screen will appear. Tap the GREEN Measure button.

TO USE THE SCOOP
• Push the scoop onto the cell while shifting it gently side-to-side.
• Hold the scoop directly under a vertical sample stream while measuring. Avoid bubbles.
• To remove the scoop, pull it off while shifting it gently side-to-side.

Quick Start Guide: ULTRAPENx2™ PTBT1 with the Ultrapen PTBTX2™ APP
Conductivity / TDS / Salinity and Temperature Pen for Use with your Mobile Device

CALIBRATING THE PTBT1

REQUIRED MLC CALIBRATION SOLUTIONS

<table>
<thead>
<tr>
<th>PTBT1 Mode Setting</th>
<th>Conductivity KCl</th>
<th>TDS 442</th>
<th>TDS NaCl</th>
<th>Salinity 442</th>
<th>Salinity NaCl</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLC Calibration Solution</td>
<td>1800 µS</td>
<td>442™ 3000 ppm</td>
<td>Displays as 2027 ppm in NaCl Mode</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Rinse the PTBT1 cell in Myron L® Company Calibration Solution.
2. Press and release the PEN BUTTON on the PTBT1 to turn it ON.
3. Tap the CAL button in the Feature Navigation Bar.
4. Tap the CAL button.
5. Swirl the pen in the Calibration solution while the PTBT1’s LED is flashing rapidly.

CALIBRATING Conductivity KCl ...

1. Rinse the PTBT1 cell in Myron L® Company Calibration Solution.
2. Press and release the PEN BUTTON on the PTBT1 to turn it ON.
3. Tap the CAL button in the Feature Navigation Bar.
4. Tap the CAL button.
5. Swirl the pen in the Calibration solution while the PTBT1’s LED is flashing rapidly.

NOTE: FAC CAL resets the PTBT1 to factory settings, but IT DOES NOT account for current cell condition.

Prepare the Calibration Solution:

Preparation of the Calibration Solution is essential for accurate results. Follow the instructions provided with the Calibration Solution kit to ensure proper measurement.

1. Rinse the PTBT1 cell in Myron L® Company Calibration Solution.
2. Press and release the PEN BUTTON on the PTBT1 to turn it ON.
3. Tap the CAL button in the Feature Navigation Bar.
4. Tap the CAL button.
5. Swirl the pen in the Calibration solution while the PTBT1’s LED is flashing rapidly.

6. The PTBT1 will verify the Calibration Solution is correct.
7. When the Calibration is done the App displays the values and saves a CAL record.

NOTE: FAC CAL resets the PTBT1 to factory settings, but IT DOES NOT account for current cell condition.