

TOUGH. ACCURATE. AUSTRALIAN.

90 Series

Calibration Guide



Quick Start

1. Unbox the meter and sensors
2. Connect the sensors to the meter
3. Remove any wetting caps from the sensors (pH and ORP)
4. Turn on the meter, calibrate and start testing

An asterisk (*) on the display indicates that parameter is not calibrated. When calibration is successfully completed, it will change to a decimal point (.)

Temperature Calibration

1. Plug the Electrical Conductivity (EC) sensor into the Conductivity socket.
2. Place the sensor into a beaker of room temperature water, alongside an accurate thermometer. Stir the sensor and the thermometer gently to ensure an even temperature throughout the beaker.
3. Select Temperature Calibration.
Menu: → **Calibrate:** → **Temperature:**
4. When the reading has stabilized, use the number keys to enter the temperature.
5. **Enter:** to calibrate.

pH Calibration

1. Remove the wetting cap from the pH sensor. Rinse the pH and EC sensors in distilled water and blot dry.
2. Place pH and EC/Temp sensors into a small sample of fresh pH7 buffer, so that the bulb and reference junction are both covered.
3. Select pH Calibration.
Menu: → **Calibrate:** → **pH:**

4. When the reading has stabilised,
Enter: to calibrate.
5. Rinse the pH and EC sensors in distilled water and blot dry.
6. Place both sensors into a small sample of fresh pH4 buffer, so that the bulb and reference junction are both covered.
7. Select pH Calibration.
Menu: → **Calibrate:** → **pH:**
8. When the reading has stabilised,
Enter: to calibrate.

Conductivity Calibration

1. Rinse the EC sensor in distilled water. Shake off as much water as possible. Blot the outside of the sensor dry. Do not blot the sensor plates. Ensure temperature is calibrated.
2. **Zero Calibration**
Leave the sensor dry and in the air
Select Conductivity Calibration.
Menu: → **Calibrate:** → **Conductivity:**
3. When the reading has stabilized at or near zero,
Enter: to calibrate.
4. **Standard Calibration**
Place the sensor into a sample of fresh Conductivity standard so that it is immersed at least above the vent hole. Select Conductivity Calibration.
Menu: → **Calibrate:** → **Conductivity:**
5. When the reading has stabilized,
Enter: to calibrate.

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Turbidity Calibration

- 1.** Rinse the Turbidity sensor in distilled water and blot dry. Ensure the lenses are clean.
- 2. Zero Calibration**

Place the sensor into a sample of fresh distilled water. The container should be dark to avoid reflections affecting the reading. Ensure 30mm clearance from the sensor to the floor of the container and there are no bubbles under the sensor. Stir gently.

Select Turbidity Calibration.

Menu: → **Calibrate:** → **Turbidity:**
- 3.** Allow the reading to stabilise at or near zero.
Enter: to calibrate.
- 4. Span Calibration (low)**

Place the sensor into a fresh sample of 90 NTU Turbidity standard in a dark container as per step 2.

Select Span Calibration

Menu: → **Calibrate:** → **Turbidity:**
- 5.** Allow the reading to stabilise.
Enter: to calibrate.
- 6. Span Calibration (high)**

Repeat steps 4-5 with 900 NTU Turbidity standard.



For the full handbook, further calibration notes & troubleshooting go to tps.com.au

Dissolved Oxygen Calibration

- 1.** Select the Oxygen mode of your choice
Menu: → **Mode:** → **Oxygen:**
Ensure that temperature has already been calibrated.
- 2.** Rinse the Dissolved Oxygen sensor in distilled water and blot dry.
- 3. Zero Calibration**

Place the sensor into an oxygen-free solution. This solution may be prepared by dissolving 2g of Sodium Sulphite in 100mL of distilled water.

Select Oxygen Calibration.

Menu: → **Calibrate:** → **Oxygen:**

Allow the reading to stabilise at or near zero. This may take 2-3 minutes.
- 4. Enter:** to calibrate.
- 5.** Rinse the dissolved Oxygen sensor in distilled water and blot dry.
- 6. Air Calibration**

Hang the Dissolved Oxygen sensor dry and in the air. The tip of the sensor should be pointing downwards.

Select Oxygen Calibration

Menu: → **Calibrate:** → **Oxygen:**

Allow the reading to stabilise. This may take up to 5 minutes.
- 7. Enter:** to calibrate.