

# **pH Testa**

# **Operations Manual**



# INTRODUCTION

Your purchase of this Trans pH Testa marks a step forward for you into the field of precision measurement. Although this meter is a complex and delicate instrument, its ruggedness will allow many years of use if proper operating techniques are observed and practiced.

Please read the following instructions carefully and always keep this manual within easy reach.

## 1. FEATURES:

- Dual pH and temperature display
- Waterproof to IP57 standard
- Rugged design for field and on the spot measurement
- Floats on water
- Easy to replace pH electrode
- Allows Redox measurement with optional Redox electrode
- Able to display temperature in °C or °F
- Able to record Maximum and Minimum readings in a series of tests

## 2. CONTENT:

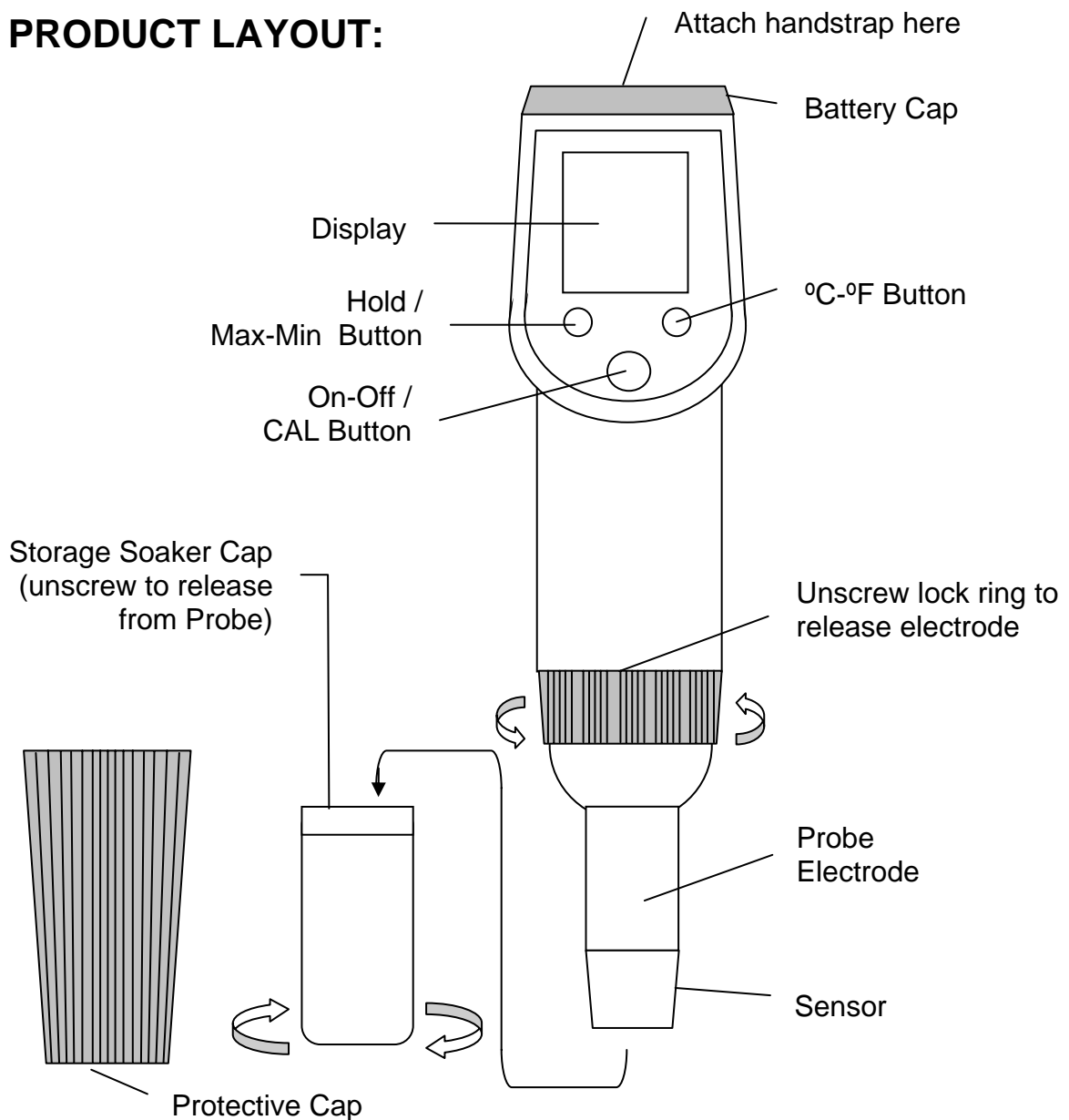
This package contains the following items:

- a. Main unit
- b. Hand strap
- c. pH7 calibration satchet
- d. pH4 calibration satchet
- e. Operations manual

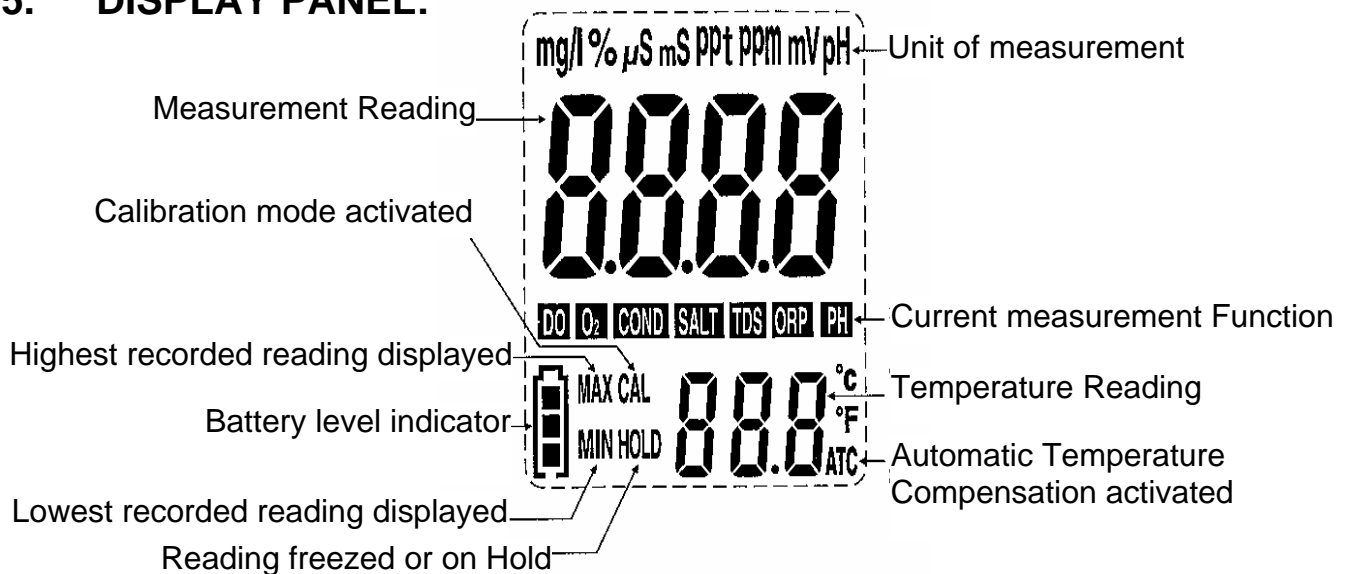
### 3. SPECIFICATION:

<b>Range</b>	0 to 14 pH	+/-999mV	0 to 90°C
<b>Resolution</b>	0.01pH	1mV	0.1°C
<b>Accuracy</b>	±0.03pH	±2mV	±0.2°C
<b>Battery</b>	4 x 1.5Volt AAA size battery		
<b>Calibration</b>	3 point at pH7.00, pH4.00 and pH10.01		
<b>Size</b>	195 x 40 x 36mm		
<b>Weight</b>	150g		

### 4. PRODUCT LAYOUT:



## 5. DISPLAY PANEL:



## 6. SETTING UP THE UNIT:

- 6.1 Remove the protective cap. Unscrew the storage Soaker Cap from the probe. Careful not to dispose the storage solution as it is required to keep the electrodes wet and ready for measurement everytime.

*If the electrode sensor is dry, a slow and sluggish reading will result. Soak in water or pH4 solution for 15 to 30 minutes before continue.*

- 6.2 Rinse the sensor in tap water or preferably distilled water.
- 6.3 Press the **On – Off** button once to switch on.
- 6.4 Temperature display is factory preset to °C.
- 6.5 To switch display to °F reading, press and hold-down the °C-°F button till reading is displayed in °F.
- 6.6 Repeat step 6.5 will return it to °C.
- 6.7 Always replace storage soaker cap before storing away.

## 7. CALIBRATION:

*\* Calibration should be performed as frequently as possible to ensure accurate measurement, depending on the frequency of tests performed. Additional calibration solution should be purchased for future needs.*

- 7.1 Cut open the shorter end of the pH7 calibration satchet.
- 7.2 Dip the sensor fully into the satchet, jiggle a little to remove bubbles.
- 7.3 Press and hold-down the **On-Off / CAL** button till **CAL** appears. Then **7.00** appears blinking.
- 7.4 When it displays **SA** then **End**, calibration is completed and the unit resumes measurement.

- 7.5 Rinse the sensor with distilled water and blot dry before proceeding.
- 7.6 To perform a 2<sup>nd</sup> point calibration, choose either pH4 or pH10 solution for calibration. This is selected based on your measuring requirement. If you are measuring between pH7 & pH4, then pH4 should be selected.
- 7.7 Cut open the short end of the pH4 calibration satchet.
- 7.8 Dip the sensor fully into the satchet, jiggle a little to remove bubbles.
- 7.9 Press and hold-down the **CAL** button till **CAL** appears. Then **4.00** appear blinking.
- 7.10 When it displays % then **SA** then **End**, calibration is completed and the unit resumes measurement.
- 7.11 Rinse the sensor with distilled water and blot dry before proceeding.
- 7.12 To perform a 3<sup>rd</sup> point calibration, repeat 7.6 to 7.11 with the other solution.
- 7.13 **ERROR CODE:** If **SA** does not appear after calibration, it means calibration fails. Check if electrode is damage by swopping with a new one.
- 7.14 ***Always perform a single point calibration with pH7 first before performing the second or third point calibration.***
- 7.15 After each successive 2<sup>nd</sup> or 3<sup>rd</sup> point calibration, the “percentage of slope” % reading will appear. This is an indication of the condition of the electrode. If the % reading shows 100%, it means the electrode is in good condition. But if the % reading is below 70% or above 130%, then the electrode has deteriorated and should be replaced.

## **8. MAKING PH MEASUREMENT:**

- 8.1 Switch on the unit.
- 8.2 Rinse the electrode in water then shake the unit with a snap motion as shaking a mercury thermometer.
- 8.3 Dip the sensor into test solution, shake to remove bubbles.
- 8.4 Once the reading stabilizes, a reading is established.
- 8.5 Press the **Hold** button once to freeze the display, pressing again will release it for another reading.
- 8.6 Always rinse the electrode before and after each test.

## **9. MAKING REDOX MEASUREMENT: (optional electrode required)**

- 9.1 An optional Redox electrode is required to perform this test.
- 9.2 Remove the pH electrode and replace with a Redox electrode according to product layout. ORP sign will appear below the displayed digit.
- 9.3 Perform setup as in section 6.
- 9.4 Dip the sensor into test solution, shake to remove bubbles.
- 9.5 Once the reading stabilizes, a reading is established.

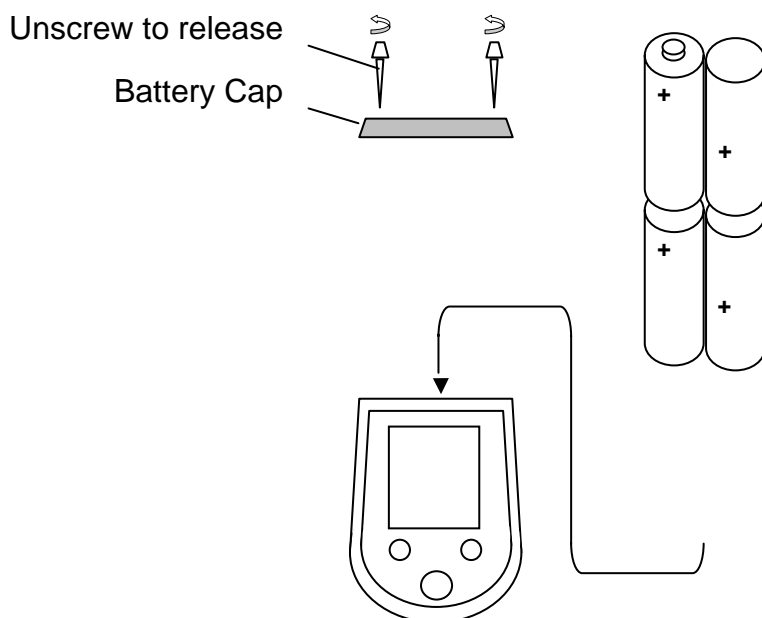
- 9.6 Press the **Hold** button once to freeze the display, pressing again will release it for another reading.
- 9.7 Always rinse the electrode before and after each test.
- 9.8 Calibration is not required for Redox electrode.

## 10. MAXIMUM / MINIMUM RECORDING:

- 10.1 To register the maximum and minimum reading over a series of test, press and hold-down the **Hold / Max - Min** button till display shows **MAX** and **MIN** annunciator blinking.
- 10.2 In this mode, proceed to make a series of tests.
- 10.3 To display the highest and lowest reading for the series of tests, press the **Hold / Max - Min** button once, the highest reading will appear with the **Max** icon momentarily followed by the lowest reading with the **Min** icon. Afterwhich, the unit resumes measurement.
- 10.4 To stop or make new recording, press and hold-down the **Hold / Max - Min** button till the **MAX** and **MIN** annunciator disappear. Repeat step 10.1 to begin a new recording.
- 10.5 Auto shutoff is disabled when recording is activated.

## 11. MAINTENANCE:

- 11.1 When the battery sign appears empty and blinking, it means that the batteries must be replaced.
- 11.2 Unscrew the 2 screws from the battery cap.



- 11.3 Change all 4 batteries with new ones according to polarity.
- 11.4 Replace the battery cap and tighten both screws. Careful to retain the O-ring in place for a water-tight seal.

## WARRANTY

Trans Instruments (Singapore) Pte. Ltd., warrants this product for a period of 12 months from date of purchase against all defects in material and workmanship.

This warranty does not apply to the abuse or misuse of the instrument. If repairs or adjustments are required, please return the defective product freight prepaid. Instrument within warranty will be repaired at no charge.

Make sure that the product is properly packed and insured against possible damage or loss in shipment.

Purchase invoice **MUST** be accompanied in returned product or else warranty is considered void.

Please obtain authorization from Trans Instruments (Singapore) Pte Ltd. Directly or through your local sales representatives prior to returning the product.

Trans Instruments staff can be contacted at the following email address or through our web-page contacts:

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