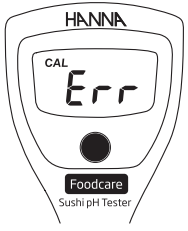
## Auto-Off


From measurement mode, press and hold the ON/OFF button. The LCD will show "OFF", "CAL" followed by "d08" (default setting, 8 minutes). Release the ON/OFF button. A single press on the ON/OFF button will change the auto-off timer to "d60" (60 minutes). To disable the auto-off feature, press the ON/OFF button again, LCD will show "d--". Press and hold to exit.

## Clear Calibration

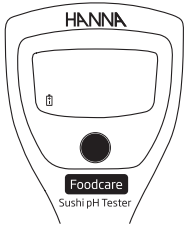

To clear the user calibration and restore the tester to factory default. From calibration mode, press and hold the ON/OFF button, the LCD will show "CLr".

## "Err" Message




In calibration mode, if the probe is in the correct buffer solution and the "Err" message is displayed, the probe should be cleaned. Soak the probe in cleaning solution for 20 minutes. Rinse with water and hydrate electrode in storage solution for a minimum of 30 minutes before calibrating.

## Battery Indicator




When the battery level is low, the tag on the LCD will blink. When the battery is depleted the "Erb" message is displayed and the tester is powered off.

## Care & Maintenance

Please read the information below, to ensure the highest possible accuracy:

- Fresh buffer should be used for each calibration, once the sachets are opened the buffer value can change over time.
- For improved accuracy a two-point calibration is recommended.
- If the electrode is slow or sluggish, soak it in cleaning solution for 20 minutes. Rinse with water and hydrate the electrode in storage solution for a minimum of 30 minutes before calibrating.
- If measurements are taken successively, rinse the probe thoroughly in distilled or deionized water to eliminate cross-contamination.
- The probe should be cleaned after each use with a soft tissue to eliminate all impurities.
- When not in use, add a few drops of storage solution to the protective cap to keep the glass tip and the junction hydrated. If storage solution is not available, pH 4.01 or pH 7.01 buffer can be used. Never store the probe in distilled or deionized water.

***Note:*** *Never immerse the tester over the maximum immersion level.*

## Battery Replacement

To change the CR2032 lithium-ion battery, turn the battery cover, located on the back of the tester, counterclockwise to unlock. Remove cover and replace the battery with positive (+) side facing out.

***Note:*** *Only use the battery type specified in the manual. Old batteries should be disposed in accordance with local regulations.*

## Accessories

| | |
|---|---|
| **pH Buffer Solution** | |
| **HI70004P** | pH 4.01 buffer solution, 20 mL sachet (25 pcs.) |
| **HI70007P** | pH 7.01 buffer solution, 20 mL sachet (25 pcs.) |
| **HI77400P** | pH 4.01 & 7.01 buffer solution, 20 mL sachet (10 pcs., 5 each) |
| **Electrode Cleaning Solution** | |
| **HI700601P** | General purpose cleaning solution, 20 mL sachet (25 pcs.) |
| **HI700683P** | Cleaning solution for sushi, 20 mL sachet (25 pcs.) |
| **Electrode Storage Solution** | |
| **HI70300L** | Electrode storage solution, 500 mL |
| **HI70300M** | Electrode storage solution, 230 mL |
| **HI9072** | Electrode storage solution, 13 mL dropper |
| **HI70300S** | Electrode storage solution, 30 mL dropper |

## Warranty

The HI981035 is warranted for a period of one year against defects in workmanship and materials when used for its intended purpose and maintained according to instructions. This warranty is limited to repair or replacement free of charge. Damage due to accidents, misuse, tampering or lack of prescribed maintenance is not covered. If service is required, contact your local Hanna Instruments Office. If under warranty, report the model number, date of purchase, serial number and the nature of the problem. If the repair is not covered by the warranty, you will be notified of the charges incurred. If the instrument is to be returned to Hanna Instruments, first obtain a Returned Goods Authorization (RGA) number from the Technical Service department and then send it with shipping costs prepaid. When shipping any instrument, make sure it is properly packaged for complete protection.

## Recommendations for Users

Before using this product, make sure it is entirely suitable for your specific application and for the environment in which it is used. Any variation introduced by the user to the supplied equipment may degrade the tester's performance. For yours and the tester's safety do not use or store the tester in hazardous environments.

## Certification

All Hanna Instruments conform to the **CE European Directives**.

CE

RoHS compliant

**Disposal of Electrical & Electronic Equipment**. The product should not be treated as household waste. Instead hand it over to the appropriate collection point for the recycling of electrical and electronic equipment which will conserve natural resources.

**Disposal of waste batteries.** This product contains batteries, do not dispose of them with other household waste. Hand them over to the appropriate collection point for recycling.

Ensuring proper product and battery disposal prevents potential negative consequences for the environment and human health. For more information, contact your city, your local household waste disposal service, the place of purchase or go to www.hannainst.com.

***Hanna Instruments reserves the right to modify the design, construction, or appearance of its products without advance notice.***



IST981035 10/19

# INSTRUCTION MANUAL

Foodcare

# HI981035

## Sushi pH Tester


HANNA® instruments

## Dear Customer,

Thank you for choosing a Hanna Instruments product. Please read this instruction manual carefully before using the tester.

For more information about Hanna Instruments and our products, visit www.hannainst.com or e-mail us at sales@hannainst.com.

For technical support, contact your local Hanna Instruments Office or e-mail us at tech@hannainst.com.

## Preliminary Examination

Remove the tester and accessories from the packing material and examine it carefully. If you require any further information, please contact Hanna Instruments technical support team at tech@hannainst.com.

Each HI981035 is delivered in a cardboard box and is supplied with:

- HI70004 pH 4.01 buffer solution, 20 mL sachet (2 pcs.)
- HI70007 pH 7.01 buffer solution, 20 mL sachet (2 pcs.)
- HI700683 Cleaning solution for sushi, 20 mL sachet (2 pcs.)
- HI9072 Electrode storage solution, 13 mL dropper
- CR2032 3V Lithium-ion battery
- Instrument quality certificate
- Instruction manual

***Note:*** *Save all packing material until you are sure that the tester works correctly. Any damaged or defective item must be returned in its original packing material with the supplied accessories.*

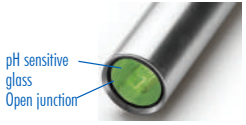
## General Description & Intended Use

The HI981035 Sushi pH Tester is designed to measure the pH of sushi rice and ensure it meets the food-hygiene and Hazard Analysis Critical Control Point (HACCP) regulations. It features a single button operation system and is easy to use. It has a compact and waterproof casing and automatic pH calibration at one or two points. All readings are automatically compensated for temperature variations with a built-in temperature sensor. The flat tip of the pH electrode provides optimal contact between the rice and the sensor. The pH electrode has an open junction design and utilizes a non-flowing gelled reference electrolyte. The flat tip allows the pH electrode to equilibrate quickly and reproducibly.

## Probe Features

### Flat Glass Tip

The flat tip provides optimal surface contact for sushi rice pH measurements and for surfaces that cannot be penetrated.




### Open Junction Reference

The open junction design uses a solid gel interface between the sushi rice sample and internal Ag/AgCl reference. This interface prevents silver from exiting the junction and makes it impermeable to clogging, resulting in a fast response and stable reading. This design allows for smaller sample sizes as there is no junction to submerge.

### Titanium Body

Rugged and resilient, the titanium body of the probe works as an electronic shield protecting against interferences from electrical noise or humidity. The titanium body is virtually unbreakable, offering protection from accidental breakage.

## Specifications

| | |
|---|---|
| Range | 0.00 to 12.00 pH |
| Resolution | 0.01 pH |
| Accuracy | ±0.05 pH |
| Calibration | Automatic, one or two-point |
| Temperature compensation | Automatic, 0 to 50 °C |
| Electrode | Built-in probe for specific application |
| Battery type | CR2032 Lithium ion (included) |
| Battery life | Approximately 800 hours of continuous use |
| Auto-off | 8 minutes, 60 minutes or disabled |
| Environment | 0 to 50 °C (32 to 122 °F); RH 95% max |
| Dimensions | 51 x 160 x 21 mm (2.0 x 6.3 x 0.9") |
| Weight | 57 g (2.0 oz.) |

## Functional Description & LCD Display


## Preparation

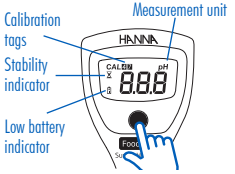
- Remove the protective cap. Do not be alarmed if salt deposits are present. Rinse the probe with water and blot dry.
- If the glass and / or junction are dry, soak the electrode in storage solution for a minimum of 30 minutes. Rinse with water and blot dry.
- Calibrate the electrode before using. For best results it is recommended to recalibrate periodically.

## Storage

- To ensure a quick response, the glass tip and the junction should be kept moist.
- Replace protective cap with a few drops of storage solution when not in use. Do not store the electrode in distilled or deionized water.

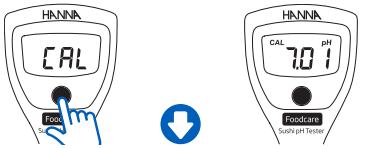
## Operation

Press the ON/OFF button to turn the tester on. The tester displays all LCD segments for a few seconds.
The tester will enter measurement mode, the current reading and calibrated buffers will be shown.




## Calibration

From measurement mode, press and hold the ON/OFF button until "CAL" is displayed.

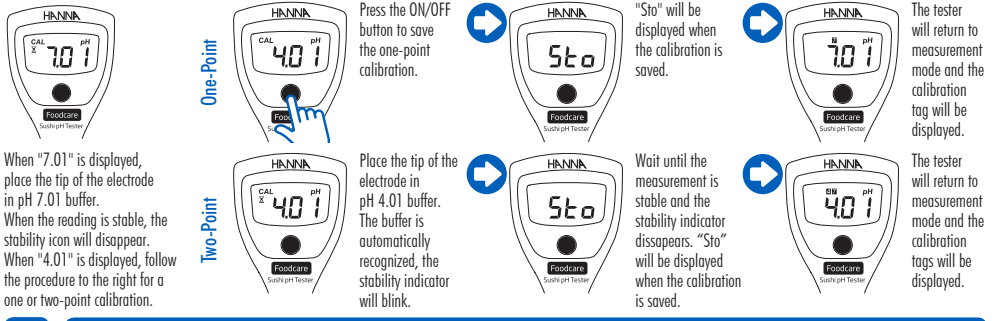


**A** For one or two-point calibration using pH 7.01 buffer solution, follow procedure A.

**B** For one-point calibration using pH 4.01 buffer solution, follow procedure B.

***Note:*** *It is recommended to calibrate the electrode with buffers at the temperature it will be used at.*

## A One or Two-Point Calibration with pH 7.01




## B One-Point Calibration with pH 4.01