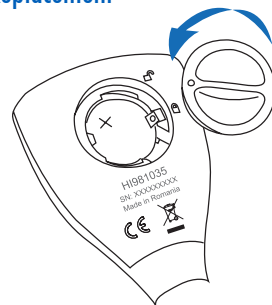


Foodcare HI981035 Sushi pH Tester



Battery Replacement



To change the CR2032 Li-ion battery, turn the battery cover located on the back of the meter counterclockwise to unlock. Remove cover and replace the battery with + side facing up.

Note: Batteries should only be replaced in a safe area using the battery type specified in this instruction manual. Old batteries should be disposed in accordance with local regulations.

Accessories

pH Buffer Solution

Code	Description
HI70004P	pH 4.01 buffer solution, 20 mL sachets (25 pcs.)
HI70007P	pH 7.01 buffer solution, 20 mL sachets (25 pcs.)
HI77400P	pH 4.01 & 7.01 buffer solution, 20 mL sachets (10 pcs., 5 ea.)

Electrode Cleaning Solution

Code	Description
HI700601P	General purpose cleaning solution, 20 mL sachets (25 pcs.)
HI700641P	Cleaning and disinfection solution for dairy products, 20 mL sachets (25 pcs.)

Electrode Storage Solution

Code	Description
HI70300L	Electrode storage solution, 500 mL bottle
HI70300M	Electrode storage solution, 230 mL bottle
HI9072	Electrode storage solution, 13 mL dropper

Auto-off



From measurement mode, press and hold the ON/OFF button. The meter will cycle through "OFF," "CAL," then current auto-off setting.

The default setting is 8 minutes ("d08"). Press ON/OFF button to change. "d60" is auto-off after 60 minutes, and "d--" disables the auto-off feature. Press and hold the button to exit the menu.

Clear Calibration



Place meter in calibration mode. Press and hold ON/OFF until "CLr" is displayed. The meter will now be at default calibration. No tags will be shown in measurement mode until calibration is performed.

"Err" Message



In calibration mode, if the meter displays an "Err" message when in the correct fresh buffer solution then the probe should be cleaned. Place the probe in the HI700641 cleaning solution for 20 minutes. Rinse with purified water and place in storage solution for a minimum of 30 minutes before calibrating.

Battery Indicator



The meter features a low battery indicator. When the battery is running low, the tag will blink on screen. When the battery has been depleted, "Erb" will appear on screen and the meter will turn off.

Care and Maintenance

To obtain the highest accuracy for measurements it is important to follow these tips:

- Calibration is only as good as the buffer being used. The pH buffer values change over time once the sachets are opened. Fresh buffer should be used for each calibration.
- Rinse the probe in purified water after use in pH buffers and between measurements of samples.
- When the meter is not in use it is important to add several drops of storage solution to the protective cap to keep the probe hydrated. If storage solution is not available, pH 4.01 or pH 7.01 buffer can be used.
- For improved accuracy it is recommended to calibrate in two buffers.
- It is important to calibrate and measure samples at the same temperature. A dramatic change in temperature between buffer solutions and samples to be tested will give inaccurate readings.
- If fouled, clean the electrode by soaking in cleaning solution for 20 minutes, then rinse the tip and soak in storage solution at least 30 minutes before use. Recalibrate after each cleaning.

Warranty

The meter is warranted for a period of one year against defects in workmanship and materials when used for their 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 meters' performance. For yours and the meter's safety do not use or store the meter in hazardous environments.

Certification

All Hanna Instruments conform to the CE European Directives.



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.

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Thank You

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

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

To find your local Hanna Instruments Office or for additional information on Hanna Instruments products, visit www.hannainst.com

Flat Glass Tip

A flat tip optimizes surface contact for measurement on flat sushi, and samples that cannot be penetrated.

Open Junction Reference

The open junction design uses a solid gel interface between the sample and internal reference cell. This interface prevents silver from exiting the junction, but also makes it impermeable to clogging, resulting in a fast response and stable reading. Due to this design, the meter can be used for smaller sample sizes as there is no junction to submerge.



pH Sensitive Glass
Open Junction

Specifications

Range	0.0 to 14.0 pH
Resolution	0.1 pH
Accuracy	±0.2 pH @25 °C/77 °F
Calibration	Automatic, one or two-point
Electrode	Built-in probe for specific application
Battery Type	CR2032 Li-ion
Battery Life	Approximately 1000 hours of continuous use
Auto-off	8 minutes, 60 minutes or can be disabled
Environment	0 to 50 °C (32 to 122 °F); RH 95% max
Dimensions	51 x 160 x 21 mm (2 x 6.3 x 0.9")
Weight	52 g (1.8 oz.)

Preliminary Examination

Remove the meter from the packing material and examine it carefully to make sure that no damage has occurred during shipment. If noticeable damage is evident, contact your local Hanna Instruments Office.

Each meter is supplied with:

- pH 4.01 buffer solution liquid sachet (2 pcs.)
- pH 7.01 buffer solution liquid sachet (2 pcs.)
- Cleaning and disinfection solution for dairy products (2 pcs.)
- Electrode storage solution, 13 mL dropper
- Instruction manual
- Quality certificate

Note: Save all packing material until you are sure that the instrument functions correctly. All defective items must be returned in the original packaging with the supplied accessories.

Intended use

Sushi rice needs to be kept warm (about 32 °C) for best results when rolling sushi. However, this can create food safety risks causing health departments to crack down on practices around the handling of sushi rice, which is often held for up to several hours in the temperature "danger zone".

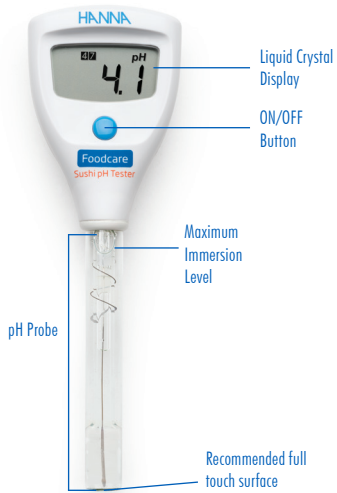
In the sushi process, pH monitoring is considered to be essential and a number of our customers are required to maintain a record of hold times and pH levels.

Most municipalities require that sushi rice is maintained below a pH of 4.6. The procedures around this standard can vary from a full Hazard Analysis Critical Control Points (HACCP) plan for sushi to health department testing. Fortunately, the pH can be controlled with rice vinegar, a traditional ingredient used in sushi rice.

Probe Features

Low Temperature Glass Formulation

Low temperature (LT) glass ensures fast stabilization and more accurate results at lower temperatures. This is beneficial since many food products are stored at low temperatures.



Meter Overview

Preparation:

The pH electrode is shipped with a protective cap containing storage solution. Before using the meter, remove the protective cap and condition the electrode by soaking the tip (bottom 1 cm (0.4")) in pH 7.01 buffer solution for several minutes. Then follow the calibration procedure.

- Do not be alarmed if white crystals appear around the cap. This is normal with pH electrodes and they dissolve when rinsed with water.
- Turn the meter on by pressing ON/OFF button.
- Remove the protective cap and place the flat tip of the electrode fully on the sample to be tested.

NEVER IMMERSER THE ELECTRODE OVER THE MAXIMUM IMMERSION LEVEL.

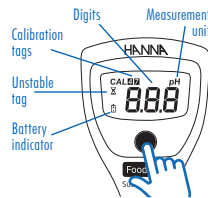
- For best results, recalibrate periodically.
- After use, rinse the electrode with water and store it with a few drops of storage solution in the protective cap.
- Reattach the protective cap after each use.

DO NOT USE DISTILLED OR DEIONIZED WATER FOR STORAGE PURPOSES.

Operation

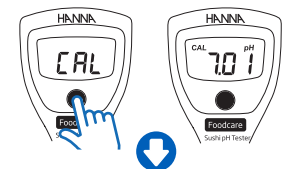
Press the ON/OFF button to turn the meter on. All tags will be displayed.

The meter will go into measurement mode: current reading and calibrated buffers are displayed.



Meter Calibration

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



When "7.01" blinks on the display, place the tip of the probe into a pH 7.01 or 4.01 buffer solution.

- A** For one or two-point calibration using pH 7.01 buffer go to procedure A
- B** For one-point calibration using pH 4.01 buffer go to procedure B

A One or Two-Point Calibration with pH 7.01

One-Point

If pH 7.01 buffer solution is used as the first point the buffer is recognized with the blinking stability indicator.

When the reading is stable, the stability indicator will disappear and pH 7.01 will be calibrated.

If pH 7.01 is the only calibration point, finish one-point procedure at right.

If using pH 4.01 as a second point, continue two-point procedure at right.

Two-Point

pH 4.01 will then blink on the display. Ignore it and press ON/OFF button.

Use pH 4.01 to perform a two-point calibration. The value is automatically recognized and displayed with the blinking stability indicator.

"Sto" will be displayed when the calibration is saved.

Meter will exit to measurement mode and the calibration tag will be displayed.

B One-Point Calibration with pH 4.01

One-Point

If pH 4.01 buffer solution is used as the first point the value of the buffer is recognized and displayed with the blinking stability indicator.

When the reading is stable, the stability indicator will disappear. "Sto" will be displayed when the calibration is saved.

Meter will exit to measurement mode and the calibration tag will be displayed.