Maintenance

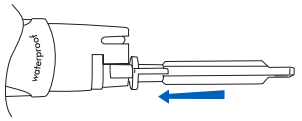
Please read the information below to ensure the highest possible accuracy.

- If measurements are taken successively, rinse the probe thoroughly in distilled or deionized water to eliminate cross-contamination.
- Clean the electrode monthly using ORP cleaning solution. Keep the electrode in HI70614 General purpose cleaning solution for 30 minutes and rinse the probe thoroughly with water.
- When not in use, add a few drops of HI703004 Storage solution to the protective cap. Never store the probe in distilled or deionized water.

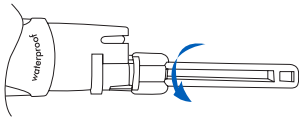
Electrode Replacement

Use supplied removal tool (HI73128) to replace the ORP electrode.

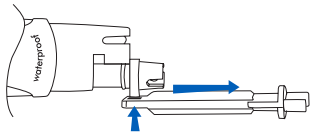
1. Insert the tool into the probe cavity.



2. Rotate the tool counterclockwise.



3. Pull the electrode out by using the other side of the tool.



4. Insert a new ORP electrode following the instruction steps in reverse order.

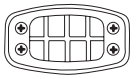
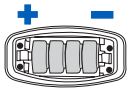
Battery Replacement

Battery life percentage indicator is displayed at power on. If the battery level drops below 5%, the ▭ symbol lights up indicating that the batteries should be replaced soon.

If the battery level is not adequate to guarantee an accurate reading, the tester automatically turns off.

To replace the batteries, follow the next steps:

1. Turn OFF the tester.
2. Remove the four screws on the top of the tester to open the battery compartment (figure 1).
3. Remove the old batteries.
4. Insert four new 1.5V batteries in the battery compartment while paying attention to the correct polarity (figure 2).
5. Close the battery compartment using the four screws.

figure 1  figure 2 

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

Accessories

Electrodes	
HI73120	Replaceable ORP electrode
HI73128	Electrode removal tool
ORP Test Solution	
HI7021M	240 mV @25 °C, ORP test solution, 230 mL
HI70224L	470 mV @25 °C, ORP test solution, 500 mL
Electrode Cleaning Solution	
HI70614L	General purpose cleaning solution, 500 mL
Electrode Storage Solution	
HI703004L	Electrode storage solution, 500 mL
Pretreatment Solution	
HI7091L	Pretreatment reducing solution
HI7092M	Pretreatment oxidizing solution, 230 mL
Other Accessories	
HI740026P	Replacement 1.5 V batteries (12 pcs.)

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.

Recommendations for Users

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

Warranty

HI981204 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. The electrode is warranted for a period of six months. 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 Office, 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.

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

All rights are reserved. Reproduction in whole or in part is prohibited without the written consent of the copyright owner, Hanna Instruments Inc., Woonsocket, Rhode Island, 02895, USA.

US DESIGN PATENT D462,024

IST981204 12/20

INSTRUCTION MANUAL

Pool Line

HI981204
Waterproof ORP & Temperature 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.
HI981204 is delivered in a cardboard box and is supplied with:

- HI73120 ORP electrode
- HI700224 ORP test solution, 470 mV, 20 mL sachet (6 pcs.)
- HI73128 Electrode removal tool
- Storage / Protection cap
- 1.5V batteries (4 pcs.)
- 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

HI981204 is a compact ORP and temperature tester, part of Hanna Instruments pool-line family. It features a two-buttons operation system and is easy to use. The compact and waterproof casing is designed to float if accidentally dropped in the water. The tester is factory calibrated and measures temperature in both °C and °F. It displays a stability tag that will disappear once the reading has stabilized.

Battery level and low-battery indicator are displayed on the LCD to alert the user in the event that low battery power could adversely affect the readings.

BEPS (Battery Error Prevention System)
The tester will automatically shut off if there is not enough power to guarantee an accurate reading.

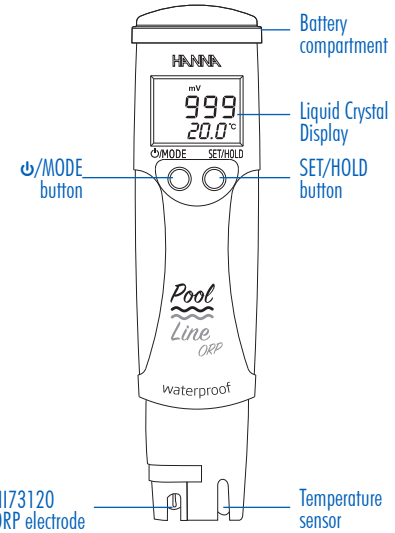
ORP Probe
HI981204 is supplied together with HI73120 replaceable ORP electrode.

Temperature Sensor
The stainless steel temperature sensor facilitates faster and more accurate temperature measurement.

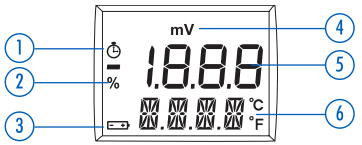
Specifications

Range	±1000 mV -5.0 to 60 °C (23.0 to 140.0 °F)
Resolution	1 mV 0.1 °C (0.1 °F)
Accuracy @ 25 °C (77 °F)	±2 mV ±0.5 °C (±1.0 °F)
Calibration	Factory calibrated
Electrode	HI73120 ORP electrode
Battery type	1.5 V
Battery life	Approximately 300 hours of use
Auto-off	After 8 minutes
Environment	-5 to 50 °C (23 to 122 °F); RH 100%
Dimensions	171 x 41 x 26 mm (6.7 x 1.6 x 1.0")
Weight	83 g (2.9 oz.)

Functional Description



LCD Display

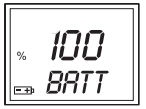


1. Stability tag
2. Battery life percentage indicator
3. Low battery indicator
4. Measurement unit
5. First LCD line
6. Second LCD line

Operational Guide

Turning the Tester ON / OFF

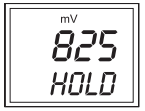
Press and hold ⏻/MODE. All LCD segments will be displayed for a few seconds followed by battery life percentage indicator (e.g. % 100 BATT).



To turn the tester OFF, from measurement mode, press ⏻/MODE.
"OFF" will be displayed on the second LCD line and the tester will turn off.

HOLD Mode

From measurement mode, press and hold SET/HOLD until HOLD is displayed. mV reading will be frozen on the LCD. Press either button to resume measurement mode.

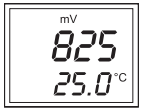


Setup

Setup mode allows the selection of temperature unit.
To enter the Setup mode, press ⏻/MODE until "TEMP" and the current temperature unit are displayed on the second LCD line (e.g. "TEMP °C").
Use SET/HOLD to change the temperature unit, and press ⏻/MODE to return to measurement mode.

Measurement

Place the electrode in the solution to be tested while stirring it gently. The measurement should be taken after the stability tag (⏱) has disappeared.



The ORP (mV) value is displayed on the first LCD line and the temperature on the second LCD line.

Note: *If measurements are taken successively, rinse the probe thoroughly in distilled or deionized water to eliminate cross-contamination. After cleaning, rinse the probe with some of the sample to be measured.*