SPECIFICATIONS

Range	-2.00 to 16.00 pH ±1000 mV -5.0 to 60.0°C / 23.0 to 140.0°F
Resolution	0.01 pH 1 mV 0.1°C or 0.1°F
Accuracy (@20°C/68°F)	±0.05 pH ±2 mV ±0.5°C or ±1°F
Typical EMC Deviation	±0.02 pH ±2 mV ±0.3°C or ±0.6°F
Temp. Compensation	Automatic for pH
Calibration	pH: at 1 or 2 points with 2 sets of memorized buffers (pH 4.01/7.01/10.01 or pH 4.01/6.86/9.18) ORP: factory calibrated
Electrode	**HI 73127** pH electrode (included)
Environment	-5 to 50°C (23 to 122°F); RH 100%
Battery Type / Life	4 x 1.5V / approx. 250 hours
Auto-off	After 8 minutes of non-use
Dimensions	163 x 40 x 26 mm (6.4 x 1.6 x 1.0")
Weight	100 g (3.5 oz)

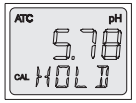
OPERATIONAL GUIDE

To turn the meter on and to check battery status

Press and hold the ⏻/MODE button until the LCD lights up. All the used segments on the LCD will be visible for 1 second (or as long as the button is pressed), followed by the percent indication of the remaining battery life (E.g. % 100 BATT).

To freeze the display

While in measurement mode, press the SET/HOLD button until HOLD appears on the secondary display. The reading will be frozen on the LCD.



Press any button to return to normal mode.

To turn the meter off

While in measurement mode, press the ⏻/MODE button. OFF will appear on the secondary display. Release the button.

Note: If measurements are taken in different samples successively, rinse the probe thoroughly to eliminate cross-contamination; and after cleaning, rinse the probe with some of the sample to be measured.

pH MEASUREMENTS & CALIBRATION

Taking measurements

Select pH mode with the SET/HOLD button.

Submerge the electrode in the solution to be tested while stirring it gently.

The measurements should be taken when the stability symbol ▯ on the top left of the LCD disappears.

The pH value automatically compensated for temperature is shown on the primary LCD while the secondary LCD shows the temperature of the sample.

Note: Before taking any pH measurement make sure the meter has been calibrated (CAL tag present on the LCD).

pH Calibration

For better accuracy, frequent calibration of the instrument is recommended. In addition, the instrument must be recalibrated whenever:

a) The pH electrode is replaced.
b) After testing aggressive chemicals.
c) Where high accuracy is required.
d) At least once a month.

Calibration procedure

From normal measuring mode, press and hold the ⏻/MODE button until OFF on the secondary LCD is replaced by CAL. Release the button. The LCD enters the calibration mode displaying "pH 7.01 USE" (or "pH 6.86 USE" if the NIST buffer set was selected).

After 1 second the meter activates the automatic buffer recognition feature. If a valid buffer is detected then its value is shown on the primary display and REC appears on the secondary LCD. If no valid buffer is detected, the meter keeps the USE indication active for 12 seconds, and then it replaces it with WRNG, indicating the sample being measured is not a valid buffer.

• For a single-point calibration with buffers pH 4.01, 9.18 or 10.01, the meter automatically accepts the calibration when the reading is stable; the meter displays the accepted buffer, with the message "OK 1". After 1 second the meter automatically returns to the normal measuring mode.

If a single-point calibration with buffer pH 7.01 (or pH 6.86) is desired, then after the calibration point has been accepted the ⏻/MODE button must be pressed in order to return to normal mode. After the button is pressed, the meter shows "7.01 (or 6.86") - "OK 1" and, after 1 second, it automatically returns to the normal measuring mode.

Note: It is always recommended to carry out a two-point calibration for better accuracy.

• For a two-point calibration, place the electrode in pH 7.01 (or pH 6.86) buffer. After the first calibration point has been accepted, the "pH 4.01 USE" message appears. The message is held for 12 seconds, unless a valid buffer is recognized. If no valid buffer is recognized, then the WRNG message is shown. If a valid buffer (pH 4.01, pH 10.01, or pH 9.18) is detected, then the meter completes the calibration procedure. When the buffer is accepted, the LCD shows the accepted value with the "OK 2" message, and then the meter returns to the normal measuring mode.

Note: When the calibration procedure is completed, the CAL tag is turned on.

To quit calibration and to reset to the default values

• After entering the calibration mode and before the first point is accepted, it is possible to quit the procedure and return to the last calibration data by pressing the ⏻/MODE button. The secondary LCD displays "ESC" for 1 second and the meter returns to the normal measuring mode.

• To reset to the default values and clear a previous calibration, press the SET/HOLD button after entering the calibration mode and before the first point is accepted. The secondary LCD displays "CLR" for 1 second, the meter resets to the default calibration and the CAL tag on the LCD disappears.

ORP MEASUREMENTS

Taking measurements

Select ORP mode with the SET/HOLD button.

Submerge the electrode in the solution to be tested.

The measurements should be taken when the stability symbol ▯ on the top left of the LCD disappears.

The ORP (mV) value is shown on the primary LCD while the secondary LCD shows the temperature of the sample.

The ORP range is factory calibrated

Contact your nearest Hanna Service Center for recalibration if necessary.

SETUP

Setup mode allows the selection of temperature unit and pH buffer set.

To enter the Setup mode, select pH mode and then press the ⏻/MODE button until CAL on the secondary display is replaced by TEMP and the current temperature unit (E.g. TEMP °C). Then:

• *for °C/°F selection*: Use the SET/HOLD button. After the temperature unit has been selected, press the ⏻/MODE button to enter the buffer set selection mode; press the ⏻/MODE button twice to return to the normal measuring mode.

• *to change the calibration buffer set*: After setting the temperature unit, the meter will show the current buffer set: "pH 7.01 BUFF" (for 4.01/7.01/10.01) or "pH 6.86 BUFF" (for NIST 4.01/6.86/9.18). Change the set with the SET/HOLD button, then press ⏻/MODE to return to the normal measuring mode.

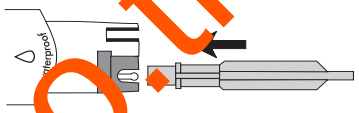
ELECTRODE MAINTENANCE

• When not in use, rinse the electrodes with water to minimize contamination and store them with a few drops of **HI 70300** storage solution in the protective cap after use. DO NOT USE DISTILLED OR DEIONIZED WATER FOR STORAGE PURPOSES.

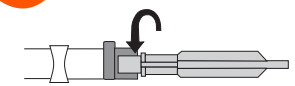
• If the electrodes have been left dry, soak in storage solution for at least one hour to reactivate them.

• To prolong the life of the electrodes, it is recommended to clean them monthly by immersing them in the **HI 7061** cleaning solution for half an hour. Afterwards, rinse it thoroughly with tap water and recalibrate the meter.

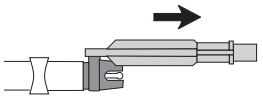
• The pH electrode can be easily replaced by using the supplied tool (**HI 73120**). Insert the tool into the probe cavity as shown below.



Rotate the electrode counterclockwise.



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

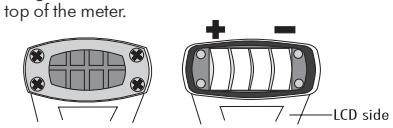


Insert a new pH electrode following the above instructions in reverse order.

BATTERY REPLACEMENT

The meter displays the remaining battery percentage every time it is switched on. When the battery level is below 5%, the ▭ symbol on the bottom left of the LCD lights up to indicate a low battery condition. The batteries should be replaced soon. If the battery level is low enough to cause erroneous readings, the meter shows "0%" and the Battery Error Prevention System (BEPS) will automatically turn the meter off.

To change the batteries, remove the 4 screws located on the top of the meter.



Once the top has been removed, carefully replace the 4 batteries located in the compartment while paying attention to their polarity.

Replace the top, making sure that the gasket is properly seated in place, and tighten the screws to ensure a watertight seal.