

# OPERATION MANUAL

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## THE JENCO MODEL 60 PORTABLE DIGITAL pH METER

**JENCO** ELECTRONICS, LTD.

MANUFACTURER OF PRECISION INSTRUMENTS

## **GENERAL INTRODUCTION**

The Jenco model 60 is a precision instrument for the measurement of pH. This instrument can operate with internal batteries or with an AC adapter. When used with the AC adapter, the internal batteries are automatically bypassed.

## **INITIAL INSPECTION**

Carefully unpack the instrument and accessories. Inspect for damage in shipment. If any damage is found, NOTIFY YOUR JENCO REPRESENTATIVE IMMEDIATELY. All packing material should be saved until satisfactory operation is confirmed.

## CALIBRATION

1. Connect the pH electrode to the instrument and remove the protective cap from the electrode.
2. Rinse the pH electrode with distilled water and immerse it in pH buffer 7.00.
3. Set the TEMPERATURE control to that of the pH buffer 7.00. Allow sufficient time for the pH electrode to stabilize.
4. Adjust the calibration control for the instrument to read the buffer value corresponding to the temperature of the buffer set in step 3. Refer to Table 1.
5. Remove the pH electrode from pH buffer 7.00. Rinse with distilled water and immerse it in pH buffer 4.01.
6. Set the TEMPERATURE control to that of the buffer 4.01. Allow sufficient time for the pH electrode to stabilize.
7. Adjust the slope control for the instrument to indicate the value of the buffer 4.01 corresponding to the temperature set in step 6. Refer to Table 1.
8. Rinse the electrode with distilled water. The instrument is dual point standardized and ready for measurements.

## **MEASUREMENT**

1. Immerse the pH electrode into the sample to be measured. Allow sufficient time for the electrode to stabilize.
2. Set the TEMPERATURE control to the temperature of the sample.
3. The instrument will indicate the pH value of the sample at the temperature set in step 2.

## **BATTERY REPLACEMENT**

Replace the 9 volt internal battery when the BAT LOW indicator is ON.

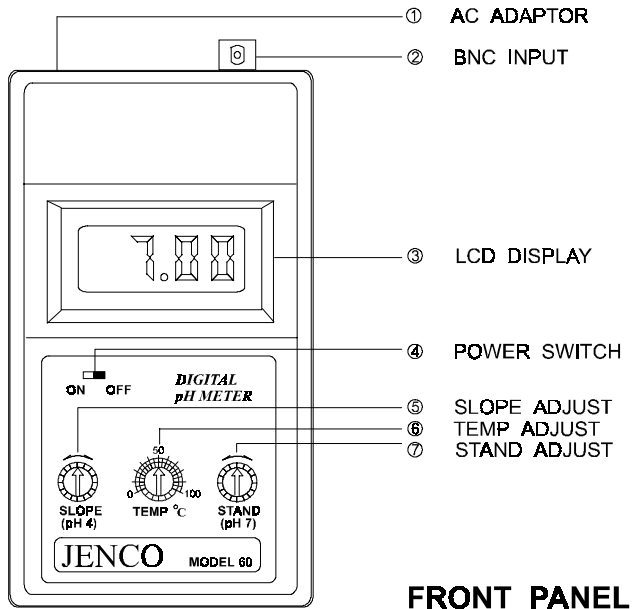
## **ELECTRODE CARE**

Rinse the electrode with distilled water after each measurement. Soak the electrode in buffer 4.01 and KCL (equal parts) when the electrode is not being used. If a hard coating has been allowed to form on the electrode bulb, remove by chemical means. For soft coating, stir in water and detergent. DO NOT ABRABE.

## TEMPERATURE COEFFICIENT OF pH BUFFERS

	10.01	7.00	4.01
5	10.25	7.08	4.00
10	10.18	7.06	4.00
15	10.12	7.03	4.00
20	10.06	7.01	4.00
25	10.00	7.00	4.01
30	9.97	6.98	4.02
35	9.93	6.98	4.02
40	9.89	6.97	4.03
50	9.83	6.97	4.06
60	9.78	6.98	4.10

TABLE 1



## **SPECIFICATIONS:**

<b>Range</b>	0 to 14.00 pH
<b>Resolution</b>	0.1 pH
<b>Accuracy</b>	0.01 $\pm$ 1 digit
<b>Temperature compensation</b>	Manual 0 to 100
<b>Compensation accuracy</b>	$\pm$ 4
<b>General</b>	
Operation temperature	0 to 40
Input impedance	Greater than 10 to the 12th Ohms
Display	0.5" high LCD
Power source	One 9v battery
Battery Life	1400 hours
Dimensions	150 mm L $\odot$ 85 mm W $\odot$ 38 mm H
Weight	200 gm

## **WARRANTY**

Jenco Instruments, Ltd. Warrants this product to be free from significant deviations in material and workmanship for a period of 1 year from date of purchase. If repair or adjustment is necessary and has not been the result of abuse or misuse, within the year period, please return-freight-prepaid and the correction of the defect will be made without charge. If you purchased the item from our Jenco distributors and it is under warranty, please contact them to notify us of the situation. Jenco Service Department alone will determine if the product problem is due to deviations or customer misuse. Out-of-warranty products will be repaired on a charge basis.

## **RETURN OF ITEMS**

Authorization must be obtained from one of our representatives before returning items for any reason. When applying for authorization, please have the model and serial number handy, including data regarding the reason for return. For your protection, items must be carefully packed to prevent damage in shipment and insured against possible damage or loss. Jenco will not be responsible for damage resulting from careless or insufficient packing. A fee will be



charged on all unauthorized returns.

**NOTE:** Jenco Instruments, Inc reserves the right to make improvements in design, construction, and appearance of our products without notice.

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