## **OPERATION MANUAL**

# THE JENCO MODEL 676 PH /ORP INDICATOR

# JENCO ELECTRONICS, LTD. MANUFACTURER OF PRECISION INSTRUMENTS

## **NOTICE**

- 1. Please read this manual carefully before using Model 676 pH/ORP Indicator.
- 2. We suggest that Model 676 be checked out by qualified authorities for quality control after one year usage.

## INITIAL INSPECTION

Unpack the instrument and accessories carefully.Inspect for damage in shipment. If damage is found, please notify JENCO ELECTRONICS,LTD. or your JENCO DISTRIBUTOR immediately. All packing materials should be saved until satisfactory operation is confirmed.

## GENERAL INTRODUCTION

The model 676 is a precision instrument for the measurement of pH and ORP. Low pricing, easy to operate and steady reliable performance make Model 676 a very dependable measuring instrument.

# 676 pH /ORP FRONT PANEL ILLUSTRATION

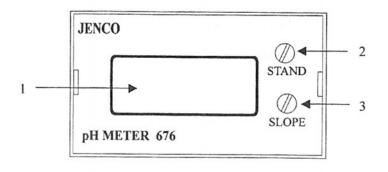
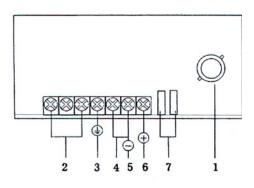


Figure 1

1.LCD display 2.pH Standardization control 3.pH Slope control

## 676 pH/ORP REAR PANEL ILLUSTRATION



- 1.pH/ORP electrode BNC input connector
- 2.AC power input
- 3.Earth ground connector
- 4.ATC input
- 5&6. Signal output(Analog voltage output)
- 7. pH/ORP select switch

Figure 2

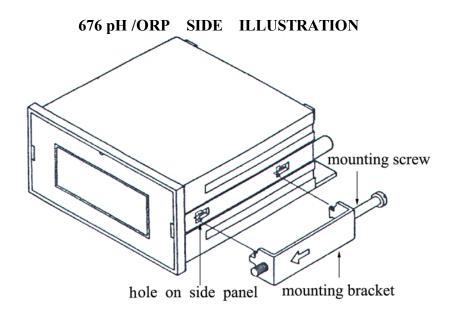


Figure 3

## 676 Panel with Mounting Bracket&Screw

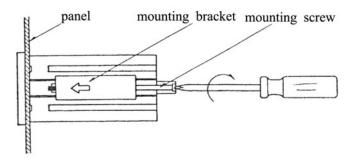


Figure 4

- 1. Remove the panel with mounting screw, loosen screw all the way.
- 2. Insert the instrument into the cutout from the front panel, then insert the mounting bracket into two holes on meter panel side and fasten srews to secure the instrument to the mounting panel.
- \* Panel cutout:92mm X 45mm

# 676 pH/ORP SPECIFICATIONS

Range

pН	mV
0~14pH	± 1999mV

Accuracy

pН	mV
± 0.01pH± 1 digit	± 0.1%± 1 digit

Load for voltage output	450Ω (Max load)
Voltage isolation for earth ground	500Vdc (Min load)
Input impedance	Greater than $10^{12}\Omega$
Temperature compensation range	0~100°C; PT-100
Operating voltage	220Vac±15%; 50/60Hz
Weight	0.31Kg
Dimensions	96mmX48mmX104mm, 1/8DIN

## **OPERATING INSTRUCTION**

Note the following before using:

- 1. Ensure whether 7 (in Figure 2)—pH/ORP switch is selected properly.
- 2. When measuring pH, be sure that the ATC probe is connected to 4 (in Figure 2)—ATC Input.

### PH STANDARDIZATION

- 1.Remove the guard cap and rinse the electrode with distilled water.
- 2.Connect pH electrode to 1 (in Figure 2)--BNC connector and fasten it.
- 3.Put the electrode into a pH7.00 or 6.86 solution, adjust the STAND control (see Figure 1) until it displays pH7.00 or 6.86(The electrode head should be immerged in the standard solution).
- 4. Remove the electrode and rinse it with distilled water.
- 5.Put the electrode into a pH 4.00 solution , adjust the SLOPE (see Figure 1) until it displays pH4.00.

- 6.Remove the electrode & rinse it with distilled water, then put it into the solution and write down its reading(s).
- 7. The ATC probe should be used if the temperature difference between the measured solution and the stand solution is over  $\pm 10^{\circ}$ C.

### ORP OPERATION

- 1.Insure that the pH/ORP switch (7 in Figure 2) is set on ORP .To set the switch to ORP, please insert the jumper into the inner two connectors.
- 2. Screw the electrode into the BNC connector.
- 3.Remove the guard cap Rinse& clean the electrode with distilled water, wipe thoroughly with tissue paper to dry.Immerge the electrode into the measured solution until the measurement is displayed.
- 4. Temperature has no bearing on the ORP measurement.

.TEMP. COMPENSATION related to IMPEDANCE (pH mode)

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Temperature (the measured solution, で)	Impedance (Accuracy: 1/2 W 0.1%,Ω)
0	100.00
10	103.90
20	107.79
25	109.77
30	111.67
40	115.54
50	119.40
60	123.24
70	127.07
80	130.89
90	134.78
100	138.50

Table 1

#### 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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