



# KFU

## جامعة الملك فيصل

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# INSTRUMENT STANDARD OPERATING PROCEDURE MANUAL

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College of Medicine



SAFETY AND LABORATORY COOMMITTEE, C.O.M, K.F.U.

**Prepared by**

Document Number	Name	Signature	Date
CM/HEM-030			
Revision Number	Approved by		
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Write the revision number	Department:		

**Document History**

Document Section	Details of Amendments	Date	Modified by (Initials)
SOP	pH meter –pH210		

**1. OBJECTIVE**

- ☐ The document describes the operation of ( pH meter 210)

## 2. SCOPE

pH CALIBRATION  
TEMPERATURE CALIBRATION.

## 3. RESPONSIBILITIES

- ☐ It is the responsibility of designated personnel in the lab to train staff and students on this procedure and to ensure adherence to this procedure under supervision.
- ☐ It is the responsibility of designated personnel (staff or Student) to follow the instructions of this procedure under supervision.

## 4. REFERENCES

- ☐ [http://www.pewa.de/DATENBLATT/DBL\\_HA\\_HA21X\\_MANUAL\\_ENGLISCH.PDF](http://www.pewa.de/DATENBLATT/DBL_HA_HA21X_MANUAL_ENGLISCH.PDF)

## 5. DEFINITIONS

### FUNCTIONAL DESCRIPTION

pH 210 AND 210 AND pH 211

- 1) Liquid Crystal Display (LCD).
- 2) CFM key, to confirm different values.
- 3) CAL key, to enter or exit/escape calibration mode.
- 4) °C key, to manually decrease temperature or select pH buffer.
- 5) °C key, to manually increase temperature or select pH buffer.
- 6) MR key, to recall the stored value.
- 7) MEM key, to store a value into memory.
- 8) RANGE key, to select measurement range (pH 211 only).
- 9) ON/OFF switch.
- 10) Power adapter socket.
- 11) BNC electrode connector.
- 12) Electrode reference socket.
- 13) Temperature probe socket.

## 6. SAFETY PRECAUTIONS

- ☐ Mention the safety precautions to be taken while carrying out any work.

## 7. PROCEDURE FOR OPERATING (pH meter –pH210)

### 7.1. Turning on the instrument:

- ☐ Plug the 12 VDC adapter into the power supply socket
- ☐ Make sure a fuse protects the main line.
- ☐ ELECTRODE AND PROBE CONNECTIONS:

For pH or ORP measurements connect an electrode with internal reference to the BNC connector on the back of the instrument.

For temperature measurements and automatic temperature compensation connect the temperature probe to the appropriate socket.

### 7.2. Software Operation.

### 7.3. Steps of the Procedure

All others operations and steps you find it on this hyperlink :

[http://www.pewa.de/DATENBLATT/DBL\\_HA\\_HA21X\\_MANUAL\\_ENGLISCH.PDF](http://www.pewa.de/DATENBLATT/DBL_HA_HA21X_MANUAL_ENGLISCH.PDF)

### 7.4. Turning off the Instrument

- ☐ To lock the device:
- ☐ just press the power button once.
- ☐ -Pull the plug from the power supply.

### 7.5. Warning

**Those who handle the pH meter should handle it gently so that the meter does not break.**

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