# MODEL PH72 Personal pH/ORP Meter Quick Manual

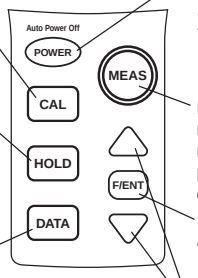
This manual briefly describes preparation, measurement, and routine maintenance procedures for the Model PH72 Personal pH/ORP Meter. Before using the meter, read the User's Manual, IM 12B03D02-01E. The chapter and section numbers in this manual correspond to those in the User's Manual.

## Keypad

Enters calibration mode when pressed during measurement. CAL mark is lit. To cancel, press CAL key again or MEAS key.

Holds the currently measured value when pressed during measurement. HOLD mark is lit. To cancel, press HOLD key again or MEAS key.

DATA mark flashes when pressed during measurement. Press F/ENT key to store the currently measured value in memory. To cancel and retun to measurement, press DATA key again or MEAS key while DATA mark is flashing.




Press and hold for over 1 second to turn power on and for over 2 seconds to turn power off. Auto Power Off function (default: 20 min).

Press to start measurement mode. In measurement mode, press to switch the display panel.

Enters function mode when pressed during measurement. Also used to confirm data entry.

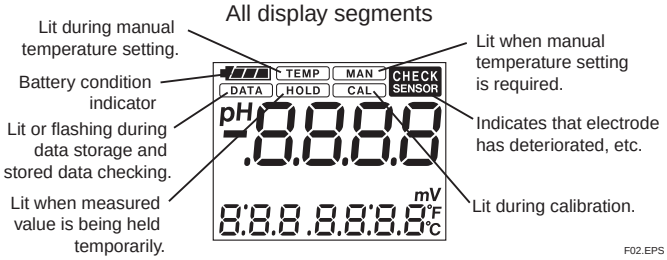
Changes setting or value.

F01.EPS

## Display (Flashing state is indicated in gray in this manual)

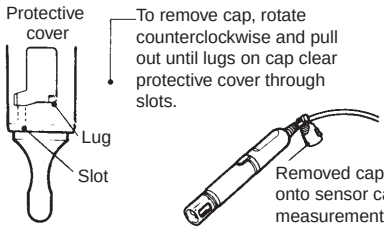
Flashing state: 0.0 Lit state: 0.0

All display segments




F02.EPS

## Wetting Cap




F10.EPS

## Display Character Table

| Alphabet | Display | Alphabet | Display | Numerals | Display |
|---|---|---|---|---|---|
| A | A | N | n | 0 | 0 |
| B | b | O | o | 1 | 1 |
| C | C | P | P | 2 | 2 |
| D | d | Q | q | 3 | 3 |
| E | E | R | r | 4 | 4 |
| F | F | S | S | 5 | 5 |
| G | G | T | t | 6 | 6 |
| H | H | U | U | 7 | 7 |
| I | I | V | V | 8 | 8 |
| J | J | W | W | 9 | 9 |
| K | K | X | | | |
| L | L | Y | y | | |
| M | M | Z | Z | | |

* Alphanumeric characters are displayed on the LCD as above.

T02.EPS

CAUTION

Do not apply physical shock or excessive force to the glass sensor, or it may break.

During sensor storage, keep the wetting cap with water-moistened cotton attached to the sensor.

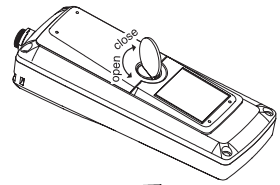
## Function Mode Item List

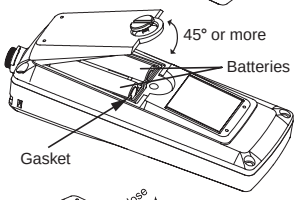
| Item | | Description |
|---|---|---|
| **dAt** | dAt | Display stored data |
| **M.tP** | MtP | Manual temperature setting |
| **PV.U** | PVU | Set measurement unit |
| **dEL.A** | dELA | Delete all stored data |
| **dAtE** | dAtE | Date setting |
| **tIME** | tIME | Time setting |
| **ALM** | ALM | Alarm time setting |
| **A.oFF** | AoFF | Set Auto Power Off time |
| **bZ.o** | bZo | Set beep on/off |
| **Std** | Std | Standard solution setting |
| **I.CP** | ICP | Initialize calibration parameters |
| **tP.U** | tPU | Set temperature unit |
| **VEr** | VEr | Check version number |
| **dFLG** | dFLG | Defrag memory |

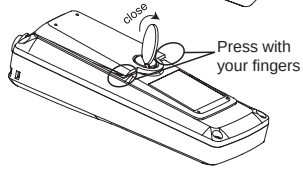
T01.EPS

## 1. Preparation (See Chapter 2)

### 1.1 Install batteries (after purchase, at battery replacement, or after long-term storage)




(1) Loosen the screw holding the battery box cover using a coin or similar object.

(2) Remove the battery box cover, and then install the batteries observing polarity diagram inside.

(3) Make sure the gasket on the inside rim of the battery box is free of foreign material.

(4) Put the cover back on. Insert the tabs on the top of the cover into the slots at an angle of at least 45° and lower the cover into position.

(5) Press the both ends of the cover down with your fingers and tighten the screw to fix the cover onto the unit using a coin or similar object.

Note: Do not attempt to tighten further when you feel resistance before the cover is fastened in place. Loosen the screw once and retighten.

F03.eps

### 1.2 Connect sensor cable (if it has not been connected)

When connecting sensor cable, tighten by turning only the silver locknut, do not turn cable or waterproof cover.

### 1.3 Set date and time (only after purchase or battery replacement)

### 1.4 Select pH or ORP measurement (see Section 2.4)

To use the meter for ORP measurement, see Chapter 8.



YOKOGAWA
Yokogawa Electric Corporation

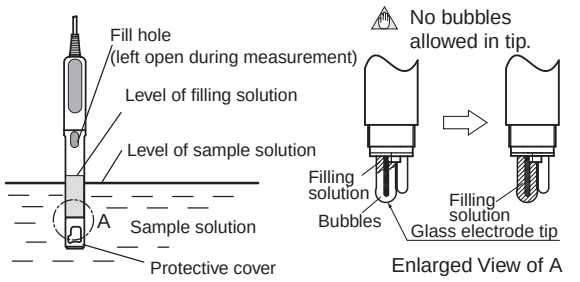
IM 12B03D02-02E 1/2
2nd Edition : Apr. 2008

## 2. Measurement (See Chapter 3)

Sample solution temperature should be in the range of 0 to 80°C.

● How to immerse the sensor

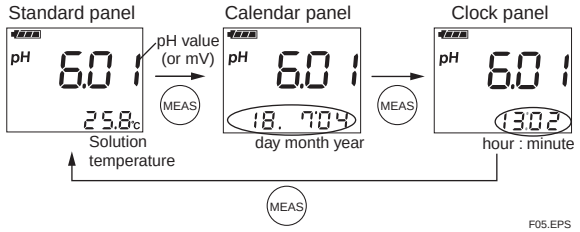
⚠ KCl refillable type sensor must be immersed so filling solution level is above the level of sample solution.




F04.EPS

● Measurement display

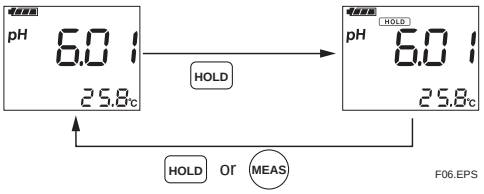
When the sensor is immersed into a sample solution, a pH (or mV) value is displayed on the LCD. Each press of MEAS key cycles through three display panels.




F05.EPS

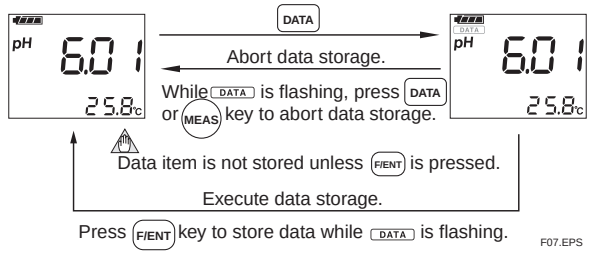
● How to store a measured value

● HOLD (temporary storage)



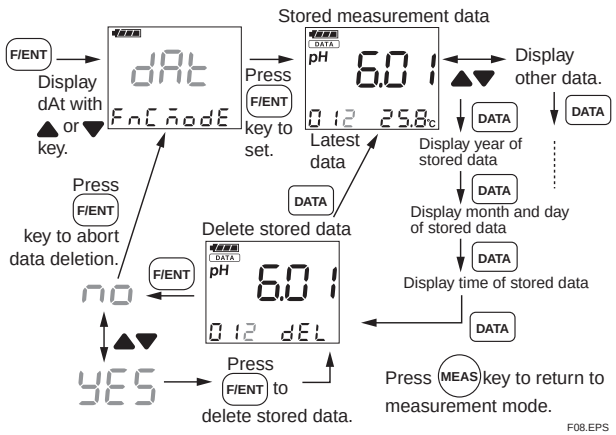

F06.EPS

● Data Storage (in memory)




F07.EPS

To check a stored data, see Section 5.3, Item (1).

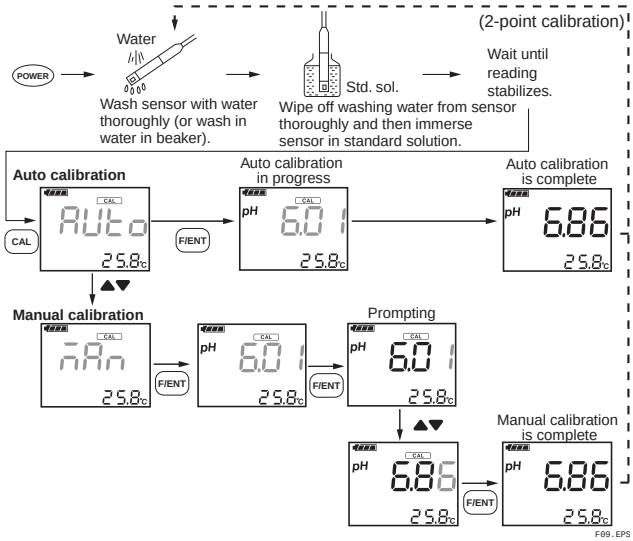



F08.EPS

## 3. Calibration (See Chapter 4)

Calibration should be performed when sensor is connected for the first time or after sensor is replaced.

● Auto calibration & manual calibration




F09.EPS

## 4. Maintenance

● Sensor cleaning (see Section 6.2)

Immediately after measurement rinse the sensor with clean water to remove stains.

● Replenishment of filling solution (see Section 6.5)

For KCl refillable type sensors, replenish the electrode with filling solution when level is low.

● Battery replacement (see Section 2.1)

When ▭ is flashing, replace batteries. Always replace two batteries at the same time. After replacing, reset the time. After replacing, reset the time.

● O-ring/Gasket replacement (see Section 6.7)

Using damaged or dirt O-ring on the connector and gasket in the battery box may not assure water resistance. Check for condition and replace if necessary.

## 5. Error Messages (See Section 7.2.)

| Error Message | | Description | Occurrence |
|---|---|---|---|
| Err1 | Err 1 | Unstable input emf | During calibration |
| Err2 | Err2 | Abnormal asymmetry potential | |
| Err3 | Err3 | Abnormal slope or calibration temperature | |
| Err4 | Err4 | Out of measuring range | During measurement |
| Err5 | Err5 | Out of temperature measuring range | |
| Err6 | Err6 | Meter electronics failure | |

T03.EPS

For corrective actions, see Section 7.2.

When CHECK SENSOR appears, electrode may still be used, but take action by referring to Section 7.4.

## 6. Storage (See Section 6.7.)

- Before storage, wash off remaining sample solution from the sensor with water
- Keep a wetting cap with water-moistened cotton attached to the sensor.
- For KCl-refillable type sensors, seal the fill hole with a plug.
- Leave the sensor connected to the meter.
- If the meter will not be used for long time, remove the batteries.