

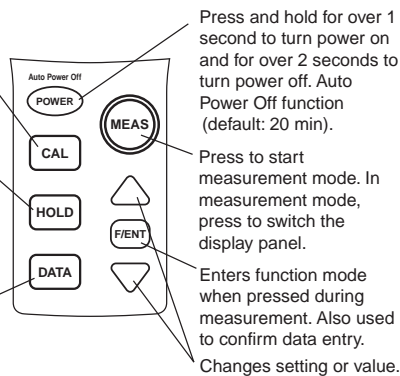
This manual briefly describes preparation, measurement, and routine maintenance procedures for the Model PH71 Personal pH Meter. Before using the meter, read the User's Manual, IM 12B03D01-01E. The chapter and section numbers in this manual correspond to those in the User's Manual.

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 return to measurement, press **DATA** key again or **MEAS** key while **DATA** mark is flashing.



CAUTION

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

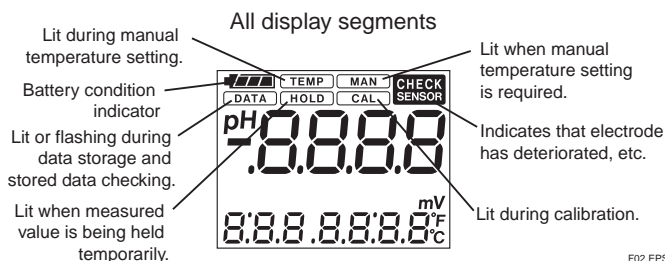
During sensor storage, keep the wetting cap with water-moistened cotton attached to the sensor.

Function Mode Item List

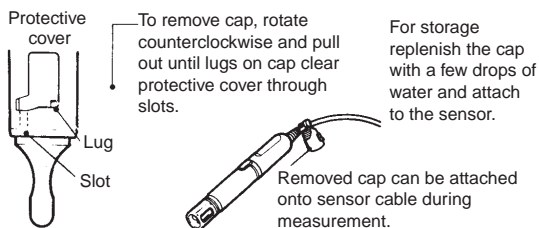
Item	Description
dAt dAt	Display stored data
M.tP n.tP	Manual temperature setting
dEL.A dEL.A	Delete all stored data
dAtE dAtE	Date setting
tIME tIME	Time setting
ALM ALM	Alarm time setting
A.oFF A.oFF	Set Auto Power Off time
b.z.o b.z.o	Set beep on/off
Std Std	Standard solution setting
I.CP I.CP	Initialize calibration parameters
tPU tPU	Set temperature unit
VEr VEr	Check version number
dFLG dFLG	Defrag memory

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

Flashing state: **0.0** Lit state: **0.0**



Wetting Cap



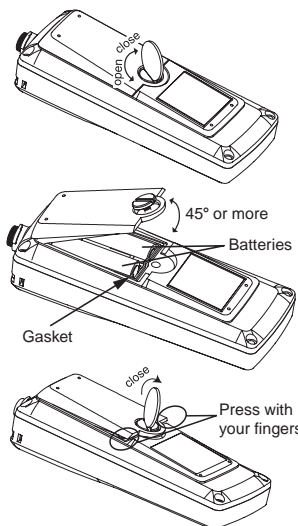
Display Character Table

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	X		
L	L	Y	Y		
M	M	Z	Z		

* Alphanumeric characters are displayed on the LCD as above.

1. Preparation (See Chapter 2)

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



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.

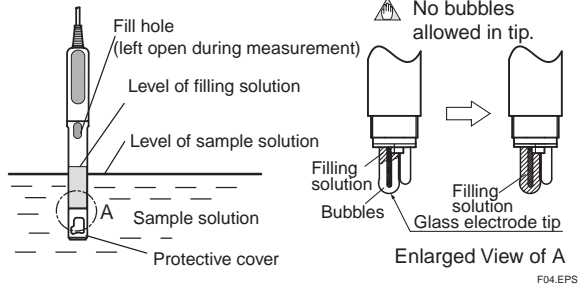
1.3 Set date and time (only after purchase or battery replacement)

2. Measurement (See Chapter 3)

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

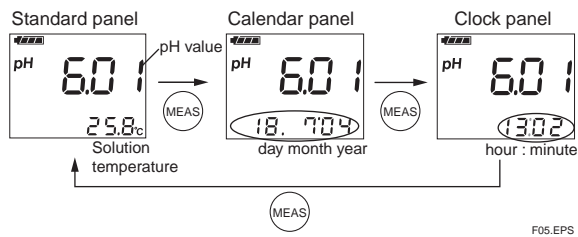
● How to immerse the sensor

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



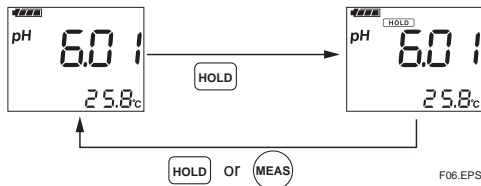
● Measurement display

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

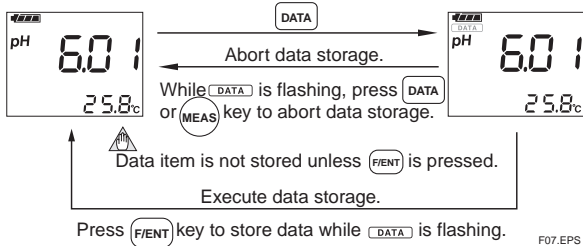


● How to store a measured value

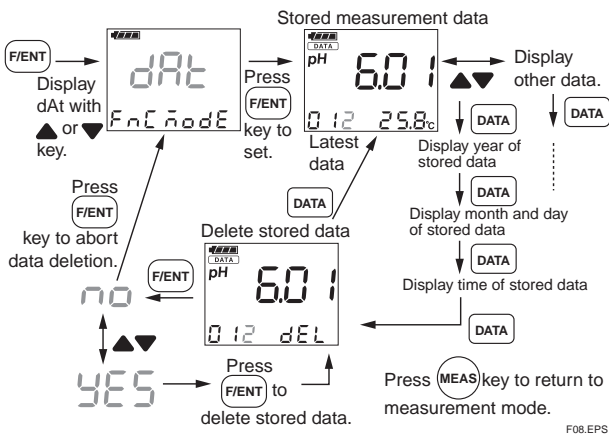
● HOLD (temporary storage)



● Data Storage (in memory)



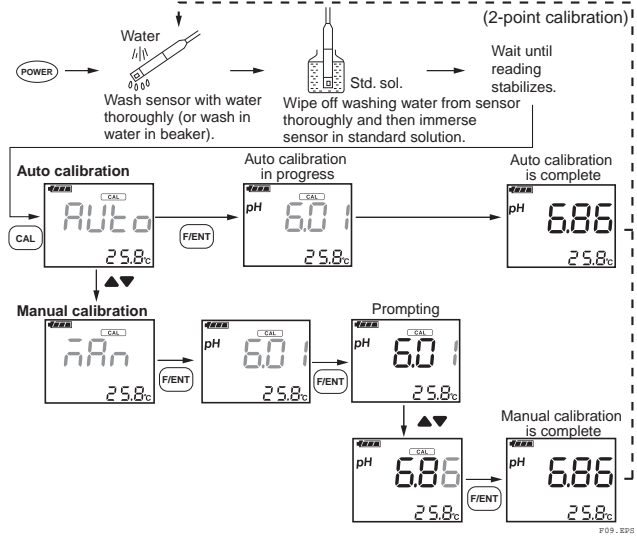
To check a stored data, see Section 5.3, Item (1).



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



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 Err1	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	

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.