

# dissolved hydrogen portable meter

ENH-1000

## User Instruction

Thank you for purchasing Dissolved Hydrogen Portable meter. Heart of ENH-1000 is a sensor especially developed for detecting dissolved hydrogen. You may want to clean sensor tip after every use for accurate measurements. If and when the sensor no longer works, it can be replaced easily. For accurate measurements and longevity of this device, read following instructions:

### [ Characteristics ]

1. Easy to carry.
2. Waterproof and floats on water.
3. Holds data with max/min indication until power off.  
Automatically shuts off in 10 min. when not in use.
4. Long battery life. Battery meter.
5. ppm/ppb display switchable.

### [ Specification ]

measurement range : 0~2000ppb  
0~2ppm

margin for error :  $\pm 10$ ppb

unit : 0.02ppm / 2ppb

battery : AAA cell battery  $\times 4$

size : body 195  $\times$  40  $\times$  36mm

case 230  $\times$  205  $\times$  50mm

weight : 135g (including batteries)

### [ Accessories ]

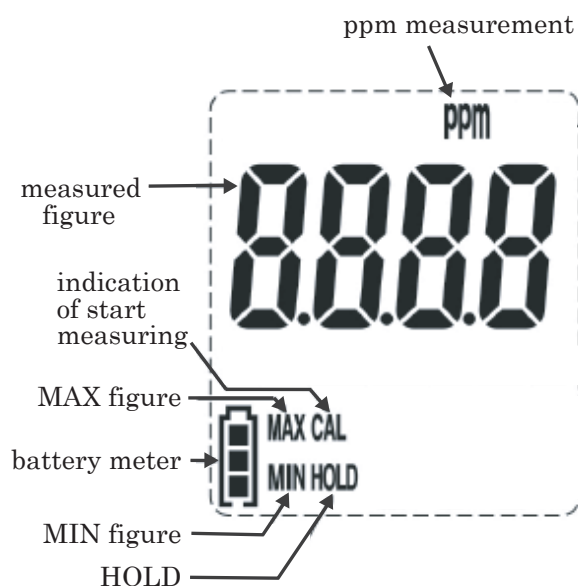
Make sure that everything is in place and in good condition:

- Indicator
- sensor moistening liquid solution bottle
- Batteries (placed in indicator body)
- User instructions
- Indicator case
- Sensor cleaning paper
- O-ring for sensor moistening cap
- Hexagon wrench(& spare screw) for battery covers

### [ Components ]



### [ Display Screen Indications ]



## [ How to Measure ]

### ● Preparation

1. Remove protection cap.
2. Unscrew sensor moistening cap on measurement body. Do not spill any liquid in the cap.
3. Power on.

### ● Measuring

1. Immerse electrode into sample liquid. a measurement should appear in 10 seconds.
2. Beware mineral elements may adhere on the sensor when measuring solution liquid with high calcium concentration such as ionized alkaline water. That would cause untoward effect.

notes :

- 1) " \_ \_ \_ " indicates it is beyond measurement range
- 2) After each use, rinse off electrode with clean water, then place a sensor moistening cap back in place. Make sure there is enough sensor moistening liquid there. If not, add some more. Do not ever make electrode dry up.
- 3) When there is some moisture or solution liquid on and near the sensor, random numbers may get displayed. Rinse off the tip with clean water and place it back in sensor protecting cap. Make sure it displays "0" before shutting off power.
- 4) If the above is all okay, place protection cap on the the device and put it back in storage case.

### ● Function modes

1. Press the hold button will give you "HOLD" on the display . It means the data is "on hold" temporary. Push the button again to go back to measuring mode.
2. Press the hold button for a few seconds until "MAX/MIN" appears on the display. Continue pressing it will give you both Max and Min data. Press the hold button again until MAX/MIN disappears. Then you are on measuring mode.

notes:

- 1) Power will not automatically shut off when in Max/Min display mode.
- 2) Replace batteries, when battery meter starts blinking.

## [ How to Replace Batteries ]

1. Unscrew the screws on a battery cover by hexagon wrench, and remove them.
2. Replace AAA cellbattery Make sure the battery is inserted correctly.
3. Place the screws back on a battery cover by hexagon wrench, screw them tightly.

notes :

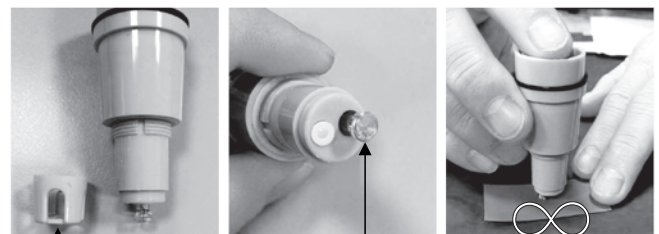
- 1) Place batteries with plus/minus connections correctly.
- 2) Do not lose O-ring on the cap.

## [ Operating Notes ]

1. When the sensor tip dries, it breaks down. Pour water into the sensor moistening cap, and prevent a sensor tip from drying. Please do not use a different liquid in substitution for sensor moistening liquid solution bottle.
2. Beware mineral elements may adhere on the sensor when measuring solution liquid with high calcium concentration such as ionized alkaline water. That would cause untoward effect.
3. Adherence of mineral elements on the sensor may cause inaccurate and inadequate results when measuring. Wipe and clean the sensor with a sensor cleaning paper before every use.  
\*Please refer to "How to sensor polishing"
4. Life expectancy of an electrode module depends on frequency of use. Generally, it should be replaced in 1-1.5 year.

## [ How to sensor polishing ]

1. Please unscrew the protection cap from the sensor tip.
2. Put the sand paper on the table, let the coarse side on the up side, and add some water on it.
3. Rub the platinum part against the sand paper according to figure "8" for around 10 times.
4. Please polish the platinum part when the reading is incorrect.



Protection cap

Platinum part

## [ How to Replace Electrode Module ]

1. Loosen a socket screw for replacing electrode module by twisting it counterclockward, then remove it.
2. Pull out electrode module from the body.
3. Slowly insert a new electrode module into the socket.
4. Place a socket screw back on the body and screw it tightly.

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Warranty effective only in Japan.