NOA∼INSTRUMENTS

pH Controller 2in1
pH+Temp

- SET
- CAL
- LED indicator
- pH
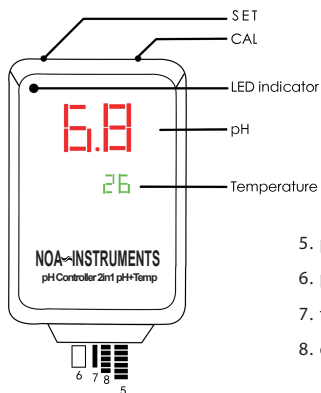- Temperature

NOA∼INSTRUMENTS
pH Controller 2in1 pH+Temp

6 7 8 5

5. power cord
6. pH electrode BNC terminal socket
7. temperature sensor
8. extension socket

CHARACTERISTICS

- Power supply: AC100V~240V, with power-off memory function.
- pH display range: 1.0~13.0. pH values over this range would not be displayed. Instead, "—" appears.
- Automatic calibration: pH7: 5.5~8.5, pH4: 3.0~5.0. pH values over this range would not be calibrated. Instead, "Err" appears.
- Temperature display range: 10 ~ 40 , with temperature compensation. Temperature over this range would not be displayed. Instead, "Err" appears.
- The controller has a temperature alarm. When aquarium water is over 35 , there will be warning from the device.
- Output setting:
  Red indicator: HI active indicator
  Green indicator: LO active indicator
  When actual pH value is higher or lower than the active point, the indicator is on and meanwhile the extension socket is in application (in output status, the add-in application is working.)
  Voltage is the same as power input, max. current is 3.0A.
  Single button for adjusting active point. Setting range: pH 5.0~9.0.
  For example, when the pH controller is applied in calcium reactor, set HI active point to pH6.5. When the actual pH value in the equipment is higher than pH6.5, red indicator is on and the CO2 solenoid is in application.

OPERATION

1. When the unit is connected to power supply, LED indicators will all light and flash twice. "pHc" flashes on the screen. If there is no operation of output setting (that means the unit is used as monitor only), testing program begins in 5 seconds.

2. Output setting:
   Connect the unit to power supply. When "pHc" flashes, press "CAL" to set "HI" or "LO" active point. When Red indicator flashes (HI active), "HI" also flashes on the screen. At this moment, pressing "CAL" can switch to "LO"
   (Green indicator flashes and "LO" also flashes on the screen.)
   Repressing the button can switch back to "HI".
   If "CAL" is not pressed within 5 seconds, the unit will save the setting and quit the process.
   If the pH controller is applied in calcium reactor, please set "HI" active point.

3. Active point setting:
   Press "SET" continuously to set the active point. The set point rises gradually from pH5.0~9.0. If "SET" is not pressed within 5 seconds, the unit will save the setting and quit the process.
   If the pH controller is applied in calcium reactor, please set the active point to pH6.5.

3.1 HI active position / active point pH6.5: the add-in application begins working when actual pH value rises to pH 6.5. But it won't stop until the pH value decreases to pH6.3. (calcium reactor in this case.)

3.2 LO active position / active point pH6.5: the add-in application begins working when actual pH value decreases to pH6.5. But it won't stop until the pH value increases to pH6.7.

NOTE: There is an interval of pH0.2 to prevent the unit from turning on and off too frequently, which may harm the unit.

4. Calibration
   Before calibration, please make sure the electrode is clean and the correct buffer solution is applied. Do calibrate pH7 first.
   Otherwise, "Err" may appear.

4.1 Connect the pH electrode to the BNC terminal socket. Insert and turn right to the end. FIG.1-1.

4.2 Connect the unit to power supply.

4.3 Wash the pH electrode in freshwater. FIG.1-2.

4.4 Wipe the pH electrode and dip it into the pH7 buffer solution. FIG.1-3. FIG.1-4.

4.5 When reading becomes stable, press "CAL" and hold it for 2 seconds. Then "C._7" appears on the screen and calibration is done.
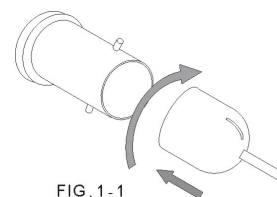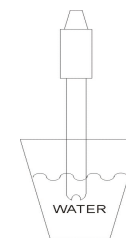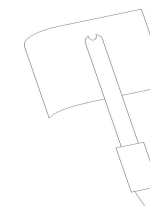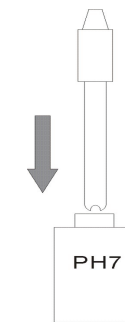   Then C_7 will flash 3 times on the screen. If it does not, calibrate again.

FIG.1-1

4.6. Rinse the pH electrode with freshwater and wipe it then dip it into the pH4 buffer solution. When reading becomes stable, press "CAL" and hold it for 2 seconds.
   Then "C._4" appears on the screen and calibration Vis done.
   Then C_4 will flash 3 times on the screen. If it does not, calibrate again.

NOTE: If "Err" appears after calibration, please check if the electrode is defective and if the buffer solution is polluted or has expired. In a calibration, if the reading changes very slowly or the pH electrode can not be calibrated to a correct reading, it might be for the reason that the pH electrode has aged and needs to be replaced then.

This unit is most often used with calcium reactor. The below instructions are for setting up in the system.

Connect the unit to power supply→pHc flashes on the screen →
press "CAL" to set "HI" active point →wait for 5 seconds →
press "SET" to set active point to 6.5 →setting is done

5. Reset to default
   Turn off the unit. Press and hold "CAL", connect the unit to power supply and wait until "rSt" appears on the screen before releasing the button.
   "rSt" flashes 4 times before the unit resets to default.

MAINTENANCE

1. Please disconnect the device from main power supply when doing maintenance.

2. Avoid any water splashing into the device in order not to damage it.

3. Please clean the debris or algae on the pH electrode regularly. When it is not in use, please store it in the buffer solution. Moisture will help protect the pH electrode.

SPECIFICATIONS

Display: 3 digits
Measurement: pH1.0~13.0, Temperature 10~40 ℃
Accuracy: ± account to one decimal place
Data updating speed: 0.4 seconds
Working humidity: max 90%
Way of calibration: automatic calibration
Power consumption: max 2W
Power output: max 5A
Accessories: instruction manual, pH electrode

WATER
FIG.1-2
FIG.1-3
PH7
FIG.1-4