# 5

## To Configure Temperature (If You Selected MANU for Temperature Compensation):

**TEMP**

1. Press **MENU** until the controller displays.

**75.1**

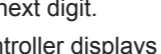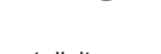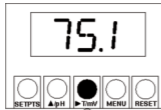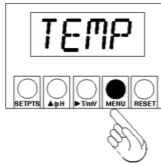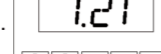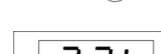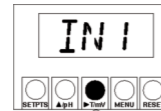2. Press **▶T/mV**. The controller displays the actual constant temperature.

3. Press **▲/pH** to change the value of the flashing digit.

4. Press **▶T/mV** to advance to the next digit.

5. Repeat steps 3 and 4 until the controller displays the desired value.

6. Press **MENU** to select the value shown. The unit displays.

**STRD**    **OT.SO**
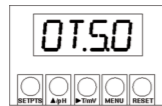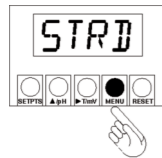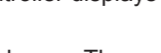
7. Press **MENU** until the controller displays cal.2 or cal.3

## To Perform Calibration (2-Point Example:)

1. Place your electrode into a pH 7 buffer solution.

**IN 1**

2. Press **▶T/mV**. The controller displays:

3. Press **▶T/mV**. The controller displays the previous value of IN 1.

**7.21**

4. Press **▶T/mV** again. The controller displays the buffer solution's pH value. Allow enough time for the electrode to settle.

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5. Press **MENU** until the controller displays.

**OK 7 → IN 2**

indicating that the value is stored.

6. Rinse the electrode with distilled water and place it into a pH4 or pH10 solution.

7. Press **▶T/mV**. The controller displays the previous value of IN 2.

8. Press **▶T/mV** again. The controller displays the buffer solution's pH value. Allow enough time for the electrode to settle.
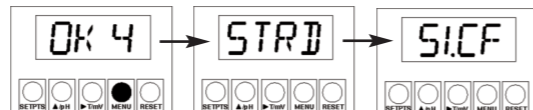
9. Press **MENU**. The controller displays:
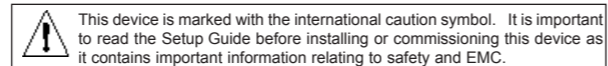
**OK 4 → STRD → SI.CF**
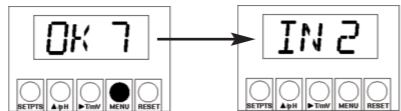
indicating that the value is stored.

For a 3-point calibration, you follow the same procedure used in 2-point calibration, except you place the electrode into three buffer solutions in this order: pH4, pH7, and then pH10.

10. Press **RESET** twice. The controller displays: and then the current pH value.

**RST**

Your controller is now up and running.
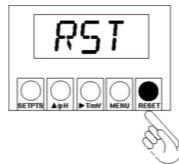
It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.

⚠ This device is marked with the international caution symbol. It is important to read the Setup Guide before installing or commissioning this device as it contains important information relating to safety and EMC.

**WARNING:** These products are not designed for use in, and should not be used for, patient connected applications.

The information contained in this document is believed to be correct but OMEGA Engineering, Inc. accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

**QUICK START**

**1 YEAR WARRANTY**  CE



# PHCN-37
## MICROPROCESSOR-BASED pH CONTROLLER

**ΩE OMEGA™**

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**Servicing North America:**

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MQS1570/0918

## Using This Quick Start Manual

Use this Quick Start manual to set up your pH Controller and begin operation. Information is provided on how to:

- Mount the controller
- Connect ac Power
- Connect a pH electrode
- Calibrate the controller prior to use

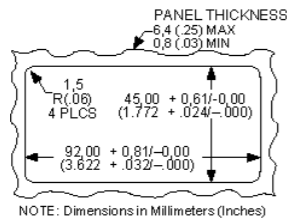For complete information on this controller, refer to the Operator's Manual.

## Before You Begin

In addition to the meter and the related parts, you will need the following items to set up your meter:

- ac power, as listed on meter's ID/Power Label
- pH electrode (with BNC input connector)
- ⅛" flat blade screwdriver

## Mount the Unit

1. Cut a panel opening using the dimensions shown to the right.
2. Position the unit in the opening, making sure the front bezel gasket is flush to the panel.
3. Slide on mounting bracket to secure.

PANEL THICKNESS
6,4 (.25) MAX
0,8 (.03) MIN

1,5
R(.06)
4 PLCS
45,00 + 0,61/–0,00
(1.772 + .024/–.000)

92,00 + 0,81/–0,00
(3.622 + .032/–.000)

NOTE: Dimensions in Millimeters (Inches)

## Connect ~ ac Power

**Warning: Do not connect AC power to your device until you have completed all input and output connections. This device must only be installed by a specially trained electrician with corresponding qualifications. Failure to follow all instructions and warnings may result in injury!**

1. Remove the panel at the back of the unit.
2. Locate the TB1 connector.
3. Insert the correct wire in each terminal as shown in the following figure and tighten the lockdown screws.
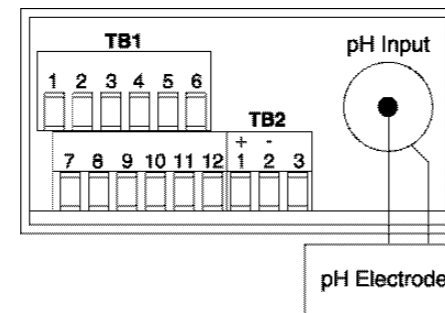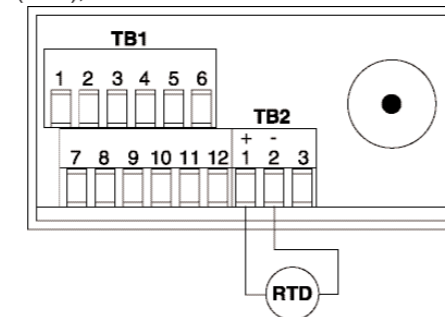4. Tug gently on the wires to verify the connections.



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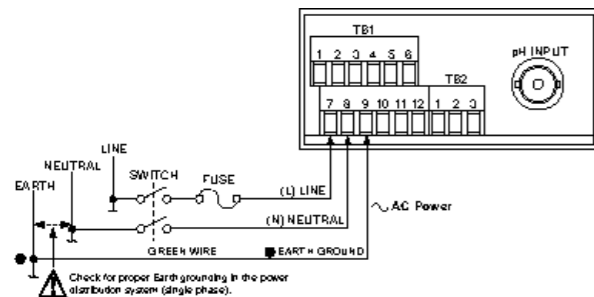


2

| IEC 127-2/III | |
|---|---|
| Power | Fuse |
| 115 V | 125 mA @ 250 (T) |
| 230 V | 63 mA @ 250 (T) |
| UL 248-14 (Listed Fuse) | |
| Power | Fuse |
| 115 V | 175 mA @ 250 V Slow-Blow |
| 230 V | 80 mA @ 250 V Slow-Blow |

## Connect the pH Electrode

1. Secure the pH electrode to the pH input BNC



2. If you are using automatic temperature compensation (ATC), connect the RTD as shown below.
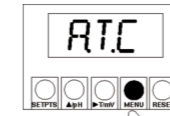


## Apply Power

1. Apply ac power to the unit.
   The unit initializes, flashing the following messages: `rst`, `ph`, `init` Then a pH value appears.
2. Verify that a value appears. If not:
   - Remove ac power.
   - Verify the TB1 power connections.
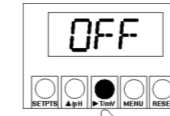   - Check your power source.
   - Apply ac power again.

---



3

## To Select Temperature Compensation Mode:

1. Press **MENU**. The controller displays:

2. Press ▶**T/mV** to display the current setting.

3. Press ▲**/pH** to change to the desired setting. Choices are:

   OFF = the controller uses a constant 25ºC for temperature compensation.

   MANU = the controller uses a manually entered value for temperature compensation.
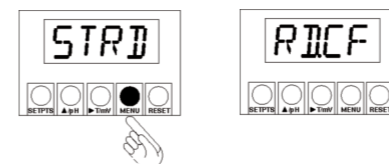
   METR = the controller uses the RTD input for automatic temperature compensation.

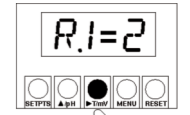4. Press **MENU** to select the temperature compensation setting shown. The controller displays.
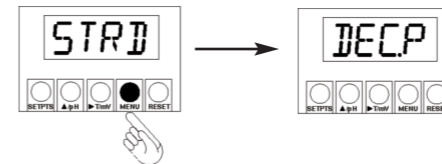


## To Set The Decimal Point Position:



1. If it's not already shown, press **MENU** until the controller displays `dec.p`

2. Press ▶**T/mV**. The controller displays:

3. Press ▲**/pH** to move the decimal point to the desired location. The choices are `ff.ff`, `ff.f`, or `ffff`
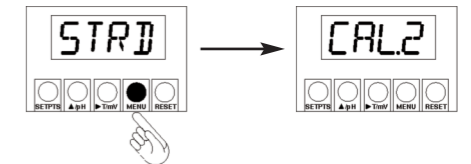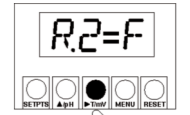


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4

4. Press **MENU** to select the decimal point position shown. The controller displays:



## Calibrate the Controller:

1. If it's not already shown, press **MENU** until the controller displays `rd.cf`

2. Press ▶**T/mV**. The controller displays `r.1= 2` or `r.1= 3` (2 or 3 point calibration).



3. Press ▲**/pH** to select the desired calibration type.



4. Press ▶**T/mV** to display `r.2= f` or `r.2= c` (temperature unit of F or C).

5. Press ▲**/pH** to select the desired temperature unit.

6. Press **MENU** to select the calibration. The unit displays.

7. Proceed with Calibration depending on Temperature Compensation Setting:

   - If you choose OFF, go to "To Perform Calibration" section.
   - If you choose METR, ensure the RTD is properly connected and go to "To Perform Calibration" section.
   - If you choose MANU, configure temperature as described in the next section.